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ORIGINAL ARTICLES.

NOTES ON THE FORMATION OF PIGMENT IN THE NEGRO.[1]

BY ROBERT B. MORRISON, M.D.,

SURGEON TO THE OUTDOOR SKIN CLINIC OF JOHNS HOPKINS HOSPITAL, BALTIMORE.

IN the city of Baltimore, whence I come, the proportion of the negro to the white is very large. In round numbers, it may be stated that about twenty-five per cent. of the cases presenting themselves for treatment are of the negro race.

The negro is a happy, easy-going being, with but little care for the past, present, or future. His idea of morals or self-constraint in any way is slight. He eats and drinks gluttonously, and his animal passions pass all bounds when once they are excited. He increases in number rapidly as long as the child-bearing period exists. He lives generally in indifference to his surroundings, whether they be foul or filthy.

With us in America the reason for all this is the sudden enfranchisement of the whole race, whereby they were changed from a dependent, almost unexceptionally well cared for, people, to one which was, without preparation, forced to make its own livelihood and to stand upon its own resources. The condition of the negro race since our civil war has been a serious question for physicians as well as philanthropists and philosophers.

From the abject poverty which they have been thrown into, many diseases have spread among them which were almost unknown when they were necessarily well cared for on plantations. Diseased negroes could not work, nor could they be well sold, hence they were housed, fed, and clothed in a healthy manner. Crowded, as they now are, in narrow back alley-ways or in tenements, with whole families in one room, it is no wonder that skin diseases, due to want of hygiene and nourishment, flourish among them.

Histologically the skin of the black race is more coarse and thick, more tough, than that of the white race. It is composed of more dense fibrous tissue, the glands are larger, as are also the nerves and vessels running into the papillary layer. The epidermis is thicker, and slightly yellowish in color, thereby adding somewhat to the general color of the skin. The pigment which lies in the first layer of the epidermis determines the color of the skin, not so much by its quantity as by its density of shade. That is, in a true black man the pigment is deep black, while in the mulatto it is present in the same quantity, but the color of the granules is lighter. There are fewer elastic fibres in the negro skin, and more subcutaneous adipose tissue than in the white. The nerves, though larger, are less sensitive both to external and internal agencies.

In diseases such as vitiligo and leucoderma, the loss of pigment is often rapid and extensive, so that in some instances the black man turns almost entirely white. In diseases where there is an increase of pigment in the white, there is either no change in the black or else there is loss of pigment. For instance, in eczema, where there is much scratching in the whites, the amount of pigment is increased, but in the negro where the epidermis has been injured, there is frequently a lessening, sometimes even an entire loss of pigment. Almost all eschars in the negro when first found are of a dull yellowish-white color, and generally and gradually take on the color of the surrounding tissues by closing in upon the spot from their periphery. It may be well to state that the negroes spoken of in this paper are the true black men or women, and not that portion of the race which has a mixture of one, two, three, or more per centum of white blood in their vessels.

Another instance where disease causes quite the reverse appearance in the negro to that in the white is psoriasis, for while this disease is rare in the negro, it heals quickly and leaves whitish spots behind, which sometimes never take on color again, so that we might think upon first viewing such a case that we had one of vitiligo before us.

Instead of having a macular syphilide, meaning a roseolar, we have a spotted appearance of the skin, the spots being whitish, and not red or copper colored. Congenital pigmented nævi are not uncommon in the negro, while, as one might expect, port-wine marks do not show even if there should be a condition of the skin similar to that of the white race which produces such a state.

[1] Read before the International Congress of Dermatology and Syphilis held in Paris, August, 1889.

As has been said, the pigment lies in the first layer of the epidermis, and in health does not penetrate higher. In some instances, however, the pigment granules are carried up into and between the epidermic cells almost to their most superficial layer.

In a case of elephantiasis arabum of the vulva[1] in which excision of the tumor was performed, the microscope disclosed that the pigment had been carried from its normal position through the lymph spaces far up into the epidermic layers. It is, of course, easy to understand why this should be, since we know that in elephantiasis arabum all the lymph glands, vessels, and spaces are enlarged. It would seem, also, that as the pigment is carried into what might be called foreign parts, its place is supplied by the formation of more, so that we have, in a case like this one, an increase of pigment, which, although in itself apparently harmless, might in other cases prove a source of malignant disease, the channel by which it spreads being possibly the lymph vessels and spaces. The extra formation of pigment in this particular case, a formation found in proportion to the amount carried into the surrounding tissues, is suggestive. At any rate, there was no loss of pigment in the line which marks its normal position.

The question as to when the formation of pigment takes place in the negro, *i. e.*, at what time of intra- or extra-uterine life, brings me to the principal point of this paper. It is popularly and scientifically stated by many authors that the children (babies) of negro parents are born white or without pigment in their skins.

Kölliker[2] says:

"The pigment of the mucous membrane in the colored races, as in the Europeans, is developed after birth; but in the former—the negro—the margins of the nails, the areola of the nipple, and the genital organs become colored about the third day, and by the fifth or sixth day the color is diffused over the whole body."

This quotation from Kölliker certainly implies that the negro baby is born without pigment and that it takes five or six days for it gradually to appear. This means, apparently, that microscopically there is no pigment in the negro fœtal skin.

Unna[3] says:

"It is very desirable that the origin of the physiological pigment of the skin should be thoroughly investigated. partly because we have no sure basis for the judgment of pathological skin pigment, partly because the origin of skin pigment, as in the history of the development of the hair, is sure to play, from an ethnological standpoint, an important part. For it is known that the colored races at birth are still without pigment (pigmentless), and an exact study of the manner and time of pigmentation in the embryo and newborn would be better able to clear up the relationship of races than the hitherto vain endeavors to draw conclusions from the hair and color of adults."

This quotation from Unna clearly shows that he thinks the negro fœtus and newborn baby is without pigment, which only appears some time after birth. In a personal interview with the author just quoted, the writer of this paper called his (Unna's) attention to the statement made. He said it was from reading and not from personal investigation which had led him to make it. He hoped some one would investigate who had the opportunity and who was brought into contact with the negro race.

Lesser[1] says:

"And I call to mind in this respect the known fact that the children in colored races are also born with entirely white skins and the pigment peculiar to them first develops in the early time of extra-uterine life."

It seems that the highest authorities in histology and dermatology agree that the negro is born white.

A doubt as to the correctness of this idea suggested a cursory investigation to the writer, who has many friends accustomed to deliver negro women. The answers received from many were not satisfactory because they had never thought of noticing the color of the child when born, knowing the mother to be black. Some of them ridiculed the idea of white negro babies, saying they had plenty of color the first moment of birth.

Several had delivered the mothers of negro babies who were themselves white, the mother acknowledging that the father was black. One physician of large experience said the babies of true negroes are born "as black as the ace of spades."

There was but one way of settling the question, viz., by microscopic examination. My assistant at the Johns Hopkins Hospital, Dr. Lord, had delivered a stillborn, eight months fœtus whose father was very black and the mother moderately so. Sections were made from the skin taken from the arm of this child. There was an unmistakable line of pigment granules lying in the lowest layer of the epidermis which could be seen microscopically as well.

In another case which Dr. Neale, of the Maryland University Lying-in Hospital, provided, sections from the prepuce of a negro baby which had died in utero thirty-six hours before birth, also showed pigment under the microscope. It was not as distinct as the specimens from the first case, as the child's parents were not black but mulattoes.

From this investigation, I feel justified in saying that the children of true negroes are not born without pigment however they may appear to the naked

[1] THE MEDICAL NEWS, April 23, 1887, by the author.

[2] Manual of Human Microscopic Anatomy, Buchanan's translation, p. 94.

[3] Ziemssen's Encyclopædia, "Skin Diseases," vol. i. p. 114.

[1] Ibid., vol. ii. p. 161.

eye. The probability is that the general congestion of the skin, the washing of the vernix caseosa from it, and the thinness of the epidermis which shows the papillary vessels more plainly beneath, cause the pigment to be overlooked when in reality it is there. Negro babies are, therefore, not born white nor do they suddenly grow black. They have pigment in the skin at least a month before birth, which can be plainly seen even with the naked eye.

The embryonic study of normal pigment in the negro will be a matter for future investigation which, as Unna has suggested, may help the pathological study of it.

The investigation must be made, however, entirely independent of the idea that negro babies are born white.

THE RELATIONS BETWEEN CHLOROSIS, SIMPLE ANÆMIA, AND PERNICIOUS ANÆMIA, INCLUDING LEUCOCYTHÆMIA AND HODGKIN'S DISEASE.[1]

BY FREDERICK P. HENRY, M.D.,
PHYSICIAN TO THE PHILADELPHIA HOSPITAL.

(Concluded from page 368)

IN an earlier part of this article I defined an independent disease to be one which rests upon a constant anatomical basis, or is invariably produced by the same specific agent. If this definition is accepted, pernicious anæmia cannot be regarded as an independent disease. Hunter and others have found, in this affection, a constant and decided increase in the amount of iron in the liver, and regard this as its essential anatomical feature. Without any wish to detract from the value of this observation, it seems to me unquestionable that this increase of iron in the liver is a consequence of defective hæmogenesis, and therefore to be classed with fatty degeneration of heart and other secondary changes. It is, in my opinion, plainly evident that the blood corpuscles of pernicious anæmia have undergone a marked degeneration. As I have elsewhere remarked,[2] the facts with reference to the blood of pernicious anæmia are such as to demonstrate a reversion to the type of the cold-blooded animals. This theory might justly be regarded as fanciful, if it were based upon a resemblance of the blood of pernicious anæmia to that of the lower animals, fishes, and reptiles, in any one particular, but the facts show that the corpuscles of pernicious anæmia resemble those of the said animals in their number, their size, their shape, and their percentage of hæmoglobin. In well-marked cases of pernicious anæmia we observe:

1. A reduction of the number of red corpuscles to a degree that is normal to the cold-blooded animals. It is not at all uncommon, in this disease, to find less than one million red corpuscles per cubic millimetre. Figures such as these are normal in the cold-blooded animals.

2. Many of the corpuscles are much increased in size, so much so that they have received the name of megalocytes. Many of them are quite as large as the corpuscles of the lizard and eel.

3. They often show a tendency to assume an oval outline. The great increase in the size of the diseased corpuscles and their oval shape are very remarkable. The patient from whom the blood was taken was a typical case of pernicious anæmia.

4. To make the resemblance complete, nucleated red corpuscles have often been observed in the blood of pernicious anæmia.

It is a most significant fact, in connection with the relations of the various affections under discussion, that the term "idiopathic" has never been applied to leucocythæmia. This disease was no sooner described by Bennett and Virchow than its association with structural changes in the blood-making organs, especially the spleen, was recognized. It corresponds, therefore, to our definition of an independent disease in being one which rests upon a constant anatomical basis.

The blood-changes of leucocythæmia are so remarkable that they would warrant the separate classification of this disease, even if there were no other constant anatomical lesions associated with it. In the first place, the volume of the blood, which is diminished to such an extraordinary degree in pernicious anæmia, is, in leucocythæmia, not only maintained, but sometimes augmented. In typical cases of this disease there is a condition of plethora, concerning the nature of which there has been some discussion. In the most minutely studied case of leucocythæmia with which I am acquainted—that of Sticker[2]—

> "The increased tension of radial and carotid arteries, the loud aortic-valve sound, and the fulness and tortuousness of retinal arteries and veins, pointed unmistakably to a condition of plethora which Sticker considers hydræmic. On the other hand, von Bamberger,[3] who has often observed dilatation of the heart cavities and abnormal fulness of the vessels in the bodies of those who have died of leukæmia, is doubtful as to the hydræmic nature of this plethora."[3]

He withdrew, by venesection, a small quantity of blood from a leukæmic patient, and analyzed it, with the result of proving that its solid residue was greater

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[1] Read before the Association of American Physicians, September, 1889.

[2] Philadelphia Medical Times, April 3, 1886.

[1] Zeitschrift für klinische Medicin, Bd. 14, 1888.

[2] Wiener klin. Wochenschrift, No. 14, 1888.

[3] F. P. Henry: Annual Univ. Med. Sci., vol. iv. 1889.

than that of normal blood. He, therefore, proposes for this condition the term *leukæmic plethora.*

The facies of a leukæmic patient is entirely different from that of a case of pernicious anæmia, and of itself shows that the vessels are well filled with blood. Sticker's patient is described as having a bright color—*eine lebhaftere Färbung;* and Delafield[1] reports the case of a man whose lips and skin were of "good color." I, myself, was surprised at the rosy color of the first leukæmic patient whose blood I examined. In addition to this plethoric state of the blood, the increase in the number of the white corpuscles, from which the disease derives its name, the more marked tendency to hemorrhage, and the new formations of lymphadenoid tissue in various parts of the body, all suffice to separate this affection from simple anæmia, chlorosis, and pernicious anæmia.

It remains, therefore, to be considered whether there is any relation between leucocythæmia and Hodgkin's disease. Without pausing to consider the appropriateness of the term, I may say that by Hodgkin's disease we understand an affection of which the most prominent features are an enlargement, more or less general, of the lymphatic glands, enlargement of the spleen chiefly due to hypertrophy of its Malpighian follicles, new formation of adenoid tissue in various parts of the body, and a high, though usually not an extreme, degree of anæmia. From this description it is evident that the lesions of Hodgkin's disease are very similar to, if not identical with, those of lieno-lymphatic leukæmia. In fact, the only material point of distinction between them is the excess of circulating leucocytes in the latter. If, then, we can point to any cases of Hodgkin's disease in which the circulating leucocytes, at first normal or subnormal, subsequently increased in number to an inordinate extent, we are justified in regarding them as instances of transition from the one affection to the other, and in assuming a close relation between them.

Fleischer and Penzoldt[2] hold that there are cases of lymphatic pseudoleukæmia which represent the initial stages (*vorstufen*) of a genuine lymphatic leukæmia, and report one in which the transition from the former to the latter was demonstrated. The patient was a male, æt. forty-two, who presented extensive glandular swellings in the neck on both sides and in the left axilla, which slowly enlarged while the condition of the patient became gradually worse. The blood was repeatedly examined, but it was not until about fourteen days before death—*i. e.*, nearly a year after the first blood examination—that the proportion of white cells to red had increased to such an extent (1 : 9) as to warrant the diagnosis leukæmia.

[1] Philadelphia Medical Times, Feb. 1, 1889.

[2] Deutsche Archiv für klinische Medizin, B. 26, 1880, S. 368.

Mosler[1] reports a case of pseudoleukæmia (Hodgkin's disease) in a boy, fourteen years old, who, when first seen, had enlarged glands in both axillæ, both supra-clavicular regions, and in the cervical and infra-maxillary regions. Neither spleen nor liver was enlarged at first, and there was no increase in the number of white corpuscles. There was moderate fever. The disease, under treatment by arsenical injections into the glands, came to a standstill for sixteen days, the examination of the blood still giving a negative result, so far as concerns the number of the white cells. The patient then returned home. Eight days later severe fever set in; the existing glandular tumors enlarged and new ones made their appearance. It also became evident, on physical examination, that the spleen and liver were decidedly enlarged. On microscopic examination the white corpuscles were now found to be increased in number to such an extent that Mosler estimated them to be equal to the red. The case ran the usual fatal course of leukæmia, but was unusually acute, its whole duration being less than two months. Mosler concludes that too sharp a distinction has been hitherto made between so-called pseudoleukæmia and leukæmia, notwithstanding the fact that this is the first case, in his large experience, in which he had observed a transition from the former to the latter affection.

The rarity of such observations as the above is undoubtedly great, but, according to Fleischer and Penzoldt, may be explained in three ways: 1. The transition is overlooked because the blood is not examined with sufficient frequency. 2. A certain time must elapse before the transition is accomplished, and death generally occurs during the pseudoleukæmic stage. For example, in Fleischer and Penzoldt's case the stage of leukæmia was not reached until eight months after the first examination of the blood, and, therefore, if death had occurred from any accident or complication within that period, the case would have been reported as one of pseudoleukæmia. 3. There may be cases of multiple lymphatic tumors which have no relation whatever to leukæmia, but belong to an entirely different species.

As a rule, there is no absolute increase in the number of circulating leucocytes in Hodgkin's disease, and, as just stated, instances of transition from this affection to leukæmia are rarely observed, but cases are not so uncommon in which the number of the white cells, while greater than under normal circumstances, is scarcely great enough to warrant the diagnosis of leucocythæmia. Laache[2] reports such a case—one in which the blood was repeatedly examined—the proportion of white to red corpus-

[1] Virchow's Archiv, Bd. 114, 1888, S. 461.

[2] Die Anämie, p. 273.

cles varying between 1 : 70, the highest point, and 1 : 339, the lowest.

I am inclined to regard an excess of white cells in the blood as the expression of a form of defective hæmogenesis which may be the terminal stage of any profound anæmia. In Fleischer and Penzoldt's case, leucocythæmia did not set in until fourteen days before death. In a case of pernicious anæmia reported by Litten,[1] the blood, previously without an excess of white cells, was found to be leukæmic (1 : 15) four days before death, and this condition continued to increase until the day before death, when the proportion of white cells to red was as one to four. In a case reported as pernicious anæmia by J. H. Musser,[2] the term leucocythæmia would, at one stage, have been more appropriate, for the white cells were to the red about as one to four. I recently examined the blood of a profoundly anæmic patient at the time of her admission to the Philadelphia Hospital—two days before her death—and found such an enormous increase in the leucocytes that, at the autopsy, which revealed a large perinephritic abscess, I made a careful, though fruitless, search for some communication between the abscess and a venous trunk. The woman had been in the hospital a short time before, in another ward, and had been regarded as a case of pernicious anæmia. The leucocythæmia was undoubtedly a late manifestation of her cachectic condition.

The foregoing facts lead me to accept the first and fourth conclusions of a paper on the "Relations of Leucocythæmia and Pseudoleukæmia," published many years ago by H. C. Wood:[3]

"1. Clinically, the so-called true and false leukæmia are the same, save only in the matter of the white blood-corpuscles. 4. There are cases which, at one period of their course, represent pseudoleukæmia; at another, leukæmia."

I am also inclined to agree with the opinion of Pepper,[4] in so far as it applies to leucocythæmia and Hodgkin's disease, that

"a condition so inconstant and irregular as the increase in the proportion of white corpuscles should not be made a ground of distinction between groups of cases identical in all other respects."

In this paper I have endeavored to confine myself strictly to the question of the relations of these various forms of anæmia, avoiding, as far as possible, any discussion of their nature. All the time at my disposal would have been occupied in the attempt to enumerate and criticise the different views concerning the pathogeny of leucocythæmia alone.

I have tried to impart and illustrate my belief that the circumstances under which chlorosis and pernicious anæmia arise are so numerous and diverse as to forbid our regarding them as independent diseases. They are, in my opinion, neither more nor less than closely related processes of defective hæmogenesis.

Leucocythæmia and Hodgkin's disease, in that they are always associated with lesions of the blood-making organs—spleen, lymph-glands, bone-marrow, etc.—are independent diseases, or, rather, different stages of the same disease, for such cases as those of Fleischer and Penzoldt, and Mosler, prove their relations to be of the most intimate nature. They also show the fallacy of the view that the local glandular affections of leukæmia are secondary to the accumulation of leucocytes in the blood.

[1] Berliner klinische Wochenschrift, Nos. 19 and 20, 1877.
[2] Proceedings Philadelphia County Medical Society, 1885.
[3] American Journal of the Medical Sciences, October, 1871.
[4] Ibid., October, 1875.

ABSCESS OF LIVER; OPERATION; DEATH; AUTOPSY.

By W. W. TOMPKINS, M.D.,
of Charleston, West Virginia.

H. T. W., aged forty years, American. Good family history; always enjoyed good health up to fourteen months ago. May 16, 1888, was injured by a boiler explosion on a steamboat, of which he was captain.

Mr. W. was near the boiler at the time of the explosion, and was blown into the river. He was cut across the forehead, scalded about the face and neck, and received a bruise on the right side just below the ribs. He never lost consciousness, but was carried home, where he remained for several days under medical care, and was then again up and about.

The personal injuries he received, the loss of property, and an apprehension that he would be held indirectly responsible for the mischief resulting from the explosion, all tended to depress him and make him more ready to succumb to disease. After recovering from his injuries he spent a week at home and then felt well enough to attend to business.

A large portion of the subsequent history of this case I have obtained from Dr. J. F. Wilcox, his physician.

After the first week's confinement at home, immediately after being injured, he sought a physician on November 24, 1888, and was confined to the house until December 6, 1888. His symptoms at this time were *malaise*, high temperature, diarrhœa, and pain in right side. He improved after this attack, and gained eighteen pounds in the next month or so; and was about and able to attend to his business, but a diarrhœa kept up all the time which weakened him and reduced him.

He soon showed very great emaciation, loss of strength and flesh, and had a dark olive color.

After this sickness he never engaged in business, but would move about, suffering constantly from diarrhœa and pain in the side, a gradual loss of flesh and strength constantly taking place.

At the time of his first illness he weighed 190 pounds, and at the time of his death, which took

place July 10, 1889, his weight was not over 90 or 100 pounds. His last sickness dates from June 12, 1889, when he took to his bed. At this time a tumor had formed under the ribs of the right side, and continued to grow downward and project forward, the patient constantly growing weaker and more emaciated. Appetite was poor, high fever existed and often chills, also a diarrhœa that was constant and that did not improve under treatment.

I was called by Dr. Wilcox, and saw him June 23, 1889. At this time the tumor extended from the lower border of the fifth rib on the right side to the crest of the ileum, and laterally to the middle axillary line. To the hand it felt hard, and all over this space dulness, or, more correctly, flatness, was found on percussion. At this time his temperature ranged from 101° to 104° F.; sweating was free; tongue furred; considerable dyspnœa; slight headache; and pain in side and over tumor, not acute, but with a sensation of fulness, as if the part was stretched over something.

A red spot as large as a silver quarter was found below the free border of the ribs, the skin was smooth and glossy. Dr. Wilcox had made a puncture in this spot the day before I saw him, and obtained a few drops of pus. On this and the history with the physical characteristics we diagnosed abscess of the liver. An incision about one inch in length was made through this spot and three pints of pus were evacuated. The swelling now in a large measure diminished, the temperature became normal, the pulse reduced in frequency, and the patient spent a comfortable night, the first for a week or ten days.

This abscess cavity was washed out two or three times a day with warm water in which some antiseptic was dissolved. A large quantity of water being used until the water that returned was perfectly clear.

After a period of four days the tumor was observed to grow larger near the median line, and the skin became red and showed indications of pointing as it had before. An incision was made here of an inch or an inch and a quarter. A quart of pus was evacuated, and again the patient became better and spent a good night. This last operation was on June 29th. From the 23d up to this time the first opening had continued to discharge freely, and after the second opening it, as well as the latter, would discharge pus whenever patient coughed or changed his position or would take a deep inspiration.

After this the patient became much troubled with vomiting; would vomit mucus and portions of liquid food; diarrhœa was constant, and did not yield to treatment. July 1st vomited pus, and also passed pus per rectum. The abscesses at first were separate, but, a week before death, water injected into one opening would come out the other. Portions of liver tissue would float into the mouth of the wound or into the drainage-tubes and occlude them, causing the patient to feel worse; they would then be removed and cleansed, and when the pus flowed freely he always felt better. The passing of pus by rectum and the vomiting showed perforation, and when the abscess-cavity was washed out the injected fluid would be passed in the same way.

July 8. Vomited and passed by rectum a quantity of foul-smelling, gangrenous matter. This was very abundant, and the smell was so offensive that the physicians and nurses could not stay in the room without being nauseated. This continued with but slight cessation up to the time of his death.

The patient's mind was never confused or clouded. He always took a cheerful view of the situation, and thought, up to within twenty-four hours of his death, that he would recover.

Autopsy, two hours after his death, conducted by Dr. J. F. Wilcox, assisted by Dr. L. Cox and myself. There were observed great emaciation and an entire absence of *rigor mortis*. A large cavity was found in the right lobe of the liver; this cavity would hold upward of three pints of fluid; it was partially divided by a partition. The liver was soft, and the hand readily broke through into the cavity when the fingers were placed above the liver and slight pressure made. An adhesion was found with an opening into the transverse colon; also an adhesion and opening into the duodenum. The gall-bladder was normal in size, but lower than it should be, and, when cut open, contained thirty-six gall-stones, one of which was larger than a pigeon's egg, and weighed 139 grains; the others were small, and collectively weighed 76 grains. There was an absence of fat in the abdominal wall as well as in the cavity. All the internal viscera looked pale and poorly nourished.

REMARKS.—Whether the explosion caused a bruise of the liver tissue, and an abscess followed, or whether the depressed condition with the diarrhœa and the abscess caused an embolus, we cannot say.

However, it is true he was never well after the injury. A portion of the time he kept up and did not consult a physician, but nevertheless felt depressed and reduced, and had a persistent diarrhœa. The pain over and about the liver was never acute, but there was a feeling of fulness and heaviness there. The thought that gall-stones might exist occurred to us, but we could never find them, although they were sought for.

The temperature was observed to fall to a few degrees below normal at the time of the vomiting of gangrenous matter, and continued so until the death of the patient.

ON RECOVERY IN CIRRHOSIS OF THE LIVER AFTER REPEATED ASPIRATION.

BY RICHARD LEA MACDONALD, B.A., M.D.,
PROFESSOR OF CLINICAL MEDICINE IN MCGILL UNIVERSITY; PHYSICIAN TO THE MONTREAL GENERAL HOSPITAL.

DURING the last few years professional opinion has undergone a change regarding the curability of cases of advanced cirrhosis of the liver, cases where the morbid process had gone so far as to cause obstruction to the course of the circulation in the por-

tal system and ascites. Most text-books give a very gloomy prognosis in this affection, one before me going even so far as to say that it is rare for a patient suffering from cirrhosis of the liver to live longer than a twelve-month after the symptoms have become so pronounced as to allow a diagnosis to be made. I have not been able to find any allusion to the class of cases that are benefited by repeated aspiration, and, so far as I know, no authority on the subject, with the exception of Flint, has laid sufficient emphasis upon the undoubted occurrence of recovery in cirrhosis of the liver, even when in an advanced stage.

Two years ago the Editor of The Medical News drew the attention of his readers to a case which I had brought before the Medico-Chirurgical Society of Montreal, where, after repeated aspirations, the fluid ceased to accumulate in the peritoneum. The patient had been admitted in August, 1885, into the Montreal General Hospital with a history of alcoholic dyspepsia followed by accumulation of fluid in the peritoneum. Sixteen months afterward I was able to report that, after sixty tappings and the removal of about nine thousand ounces, no fresh accumulation had taken place and the restoration to health was complete. Four years have gone by and I am now able to state that the patient's general health still remains good, and that there is no return of the dyspepsia. There is no doubt in my mind that the explanation of the successful result in such cases lies in the fact that the removal of fluid-pressure favors the establishment of a collateral circulation. Our anatomy teaches us that there are more ways than one by which the blood can make its way from the intestines to the liver. In fact, there are many cases on record where these by-paths have been found extensively enlarged.

If the condition of the original disease is stationary, then there is every prospect of a good recovery. Since the publication of my first case, a second one has fallen in my way. Here the result was equally satisfactory. I report the case in somewhat greater detail.

In the beginning of May, 1888, I was asked to visit a man reported to be dying of dropsy. Being unable to go that afternoon, my friend, Dr. H. Lafleur, undertook the visit and found the patient to be a butcher, aged forty-eight, who had been suffering from extreme ascites and was now in a condition of dangerous dyspnœa. A tapping with an ordinary trocar gave temporary relief with the removal of two bucketsful of serum. Two days later the abdomen was as full as ever and I tapped him myself. On the 14th of May, 1888, he was admitted into my wards of the Montreal General Hospital and it was noted in the records that he was suffering from great abdominal enlargement, dyspnœa, pain in the flanks, shooting pain in the abdomen, and a difficulty in passing urine. The patient had been all his life a butcher, and for many years had been intemperate in the daily use of the stronger kinds of spirits. When he was a boy he had had smallpox, but he has not suffered from any other serious illness. In 1886 he had an attack of jaundice with enlargement of the belly, but both disappeared after a few days. Not long afterward he began to suffer from hemorrhoids and has done so more or less ever since. In the summer of 1887 constipation and dyspeptic symptoms were troublesome and he felt very much out of health. The abdominal enlargement made itself perceptible in October, 1887, but he did not abandon his daily work until January, 1888. The first tapping took place on the 30th of March, 1888. Previously to his admission to the hospital the amount of fluid withdrawn was 3840 ounces. At the time that the abdomen first began to become distended there was jaundice which disappeared in a few days. The eyes and face, however, have remained somewhat yellow ever since. The feet have been swollen.

There is a possibility of a syphilitic taint in the family, since a large number of his brothers and sisters died in very early infancy.

On admission there was slight jaundice. Emaciation has been rapid. He weighs 142 pounds with the abdomen empty, whereas formerly he weighed much more. Appetite poor; bowels regular; urine scanty, high colored, loaded with lithates; no albumin or sugar. Abdomen is greatly distended. Girth at the umbilicus is forty-four inches; slight œdema of the feet and legs. Pulse 98, strong, and regular. Complains of the annoyance of hemorrhoids. When the abdomen is relaxed after withdrawal of the fluid, it can be shown that the liver is small, the hepatic dulness measuring but three and a half inches in the right mammary line. The apex of the heart is displaced upward by the accumulated fluid and beats in the fourth space, above the nipple. The extent of cardiac dulness is not readily mapped out. The sounds are normal. Physical signs of the lungs negative.

The patient remained in the wards until the 23d of June, and during that period was tapped six times, 1650 ounces being removed. During the rest of that summer he returned at intervals and was aspirated by members of the resident staff. I found records of three such operations, by which 910 additional ounces were withdrawn. The period between taps was now perceptibly lengthening. There were four taps in June and but two in July. After this period there is no more mention of the case in the hospital case-book. I was obliged myself to be absent from my practice for one year from the 20th of June, 1888. On resuming work in July last, I hunted up this interesting patient, whom I was surprised to find alive. After my absence he returned to his work at the butcher's stall, and put in an appearance at the Montreal General Hospital whenever the fluid became uncomfortably copious. At first it was necessary to have it removed every third week, about 200 ounces being withdrawn. There were six tappings between July 1st and November 1st. In November and December, 1888, and Jan-

uary, 1889, there was no reaccumulation, but in February last 300 ounces were withdrawn. There were but three tappings between February and May, each of about 200 ounces. Since then no fluid has appeared.

August 14, 1889. L. G. sent for me to-day to relieve an attack of vomiting and diarrhœa. For the last thirteen months, in spite of the ascites, he has been able to earn his living. He has wholly given up dram-drinking. He has felt well and strong, eaten ordinary diet, but still suffers from slight nausea and loss of appetite in the morning. According to his own record, aspiration has been performed thirty-one times, and according to my estimate no less than 8600 to 9000 ounces have been removed.

Is the patient cured? It is hard to say that any case is cured, but here was a man on the point of death from a disease well known as being commonly deadly in its effects, who, after submitting to a certain line of treatment, loses sight altogether of a most dangerous symptom, and rapidly recovers health and strength. There is no fluid whatever in the abdomen now. I examined the belly carefully on the 14th of August, 1889, and again on the 11th of September, 1889. It appears to be large, but it measures but thirty-five inches at the umbilicus. The flaccidity depends upon past distention.

In the month of August a curious train of symptoms set in, from which the patient nearly died. He was attended by Dr. W. G. Stewart, of Courville Street, Montreal, who kindly furnished me with the notes. The patient suddenly fell into a semi-unconscious condition. The tongue was thickly coated, and the stomach so irritable that nothing could be retained. There had previously been severe diarrhœa. On the following day the unconsciousness was complete. Pupils dilated. Urine passed involuntarily. On the 18th of August there was improvement, though the patient was still drowsy. In a few days he was up and at his business.

I cannot give any explanation of this attack, except that possibly it may have been caused by opium or some other substance given by mistake for bismuth powders. The symptoms set in immediately after the taking of the powders, and improvement began as soon as they were discontinued.

At the present date the patient is well and can be seen at work every day at an open stall in the St. Lawrence Market.

The conditions necessary to results such as these are the following:

1. The patient must be young, so that the vessels should be in a condition to enlarge under pressure and accommodate themselves to the altered state of the circulation. Both my patients were under fifty—the woman thirty-five and the man forty-eight. But both were younger-looking than their age.

2. There must be no other dangerous symptom present. Ascites must be the one and only morbid manifestation. Heart, lungs, and kidneys must be quite sound, and there must be no other dangerous result of portal obstruction.

3. In all cases where such good results are obtained ascites is a very early symptom, and relief is sought for at an early stage of the morbid process. There is a chance of the disease coming to a stop when the cause is removed. When a patient finds himself getting dropsical, and is told that drink is the cause, he is not likely to keep up his bad habits.

As to the particular method by which paracentesis was carried out, there is nothing to be said beyond that I think it important that the very smallest aspirator needle should be used, and that no attempt should ever be made to empty the peritoneum. Enough should be withdrawn to relieve dyspnœa and to make the patient feel comfortable. No medicinal or dietetic treatment was attempted in either case. The patients lived in the outskirts of the town, and while under treatment were often not seen for months at a time.

NEURECTOMY FOR FACIAL NEURALGIA.

BY E. M. MAGRUDER, M.D.,
INSTRUCTOR IN CLINICAL MEDICINE, UNIVERSITY OF VIRGINIA.

THE following cases in which neurectomy was performed for obstinate facial neuralgia may be of sufficient interest to be worthy of record:

CASE I.—Dr. ——, aged seventy-one; family history good so far as known; personal history also good, except that during the '60's his left foot became inflamed about the tarso-metatarsal junction without apparent cause, suppurated and discharged, preventing much locomotion for several years, with perfect ultimate recovery; no history of dead bone.

In 1875 (fourteen years ago) he began to suffer in the region corresponding to the distribution of the right supra-orbital nerve, but in a few months the seat of trouble was transferred to the infra-orbital and its distribution, and from this time on, the latter nerve and its branches were involved in frightful neuralgia, the former (supra-orbital) being affected only reflexly and during the most violent attacks. These attacks were characterized by paroxysms, with intervals of a few minutes or hours between, and which lasted at first several weeks or months, and would be followed by equal periods of almost entire relief. Gradually, however, the duration of suffering grew longer and time of respite shorter, until latterly not a day, hardly an hour, passed without excruciating torture, the pains being of a shooting, darting, electrical character; the slightest touch to the cheek or motion of the lips and jaws, as in eating, drinking, or talking, was sufficient to cause agony, the patient comparing his sensations to successive red-hot flashes of lightning through the tissues. There were also great tenderness on pressure and considerable swelling between the orbit and margin of the lip.

The patient had had malaria, but not since he was ten years old. No other cause, predisposing or exciting, could ever be traced, all the internal organs being apparently in a normal condition. He had been troubled, however, for some time with a chronic post-nasal and pharyngeal catarrh.

In the absence of any assignable cause, I made the diagnosis of peripheral neuritis, based upon the swelling, tenderness on pressure along the course of the nerve and its branches, and the superficial character of the pain.

The patient first came under my observation and care in the autumn of 1885, after ten years of suffering. Every known anti-neuralgic remedy, both internal and external, had been tried with only occasional relief. During the fall of 1886, I advised a resort to surgery as offering the only hope—though by no means a certain one—of permanent relief. The patient declined, and went to Philadelphia to consult a specialist of that city. The latter discouraged operation on the ground of its being a *dernier ressort* and uncalled for by the case in question. He prescribed iron, rest, and a visit to the seashore. This treatment was carried out, with considerable improvement, for about one year. Then the old enemy returned, reinforced, and waxed stronger and stronger, entirely incapacitating the patient for business, confining him to the house for months at a time, preventing sleep, and interfering with the taking of nourishment. All this, of course, resulted in debility, prostration, depression of spirits, and anæmia. The fluid extract of gelsemium in the dose of from seven to ten drops every three hours gave greater comfort than anything else, except morphine. Finally, even this failed in its action, and tolerance for larger and larger doses of the drug was manifested. This being the case, I again strongly advised neurectomy of the infra-orbital nerve and its branches. Consent was obtained, and I operated on June 11, 1889.

Thorough antiseptis was observed throughout, the solutions used being carbolic acid (1:30) for the instruments and corrosive sublimate (1:2000) for the person of the patient.

The patient having previously received whiskey by the mouth and atropine sulphate (gr. $\frac{1}{100}$) hypodermatically, was placed upon a table before a large window and thoroughly anæsthetized with Squibb's chloroform. The anæsthetic was well borne. I made an incision through the skin, beginning just below the lower orbital margin over the infra-orbital foramen straight downward parallel with the nose toward the lip, and ending on a level with the lower border of the ala nasi, the whole length of incision being about one inch. Then with the handle of the scalpel the fascia and fibres of the levator labii superioris were torn through and the nerve exposed at its exit, lying beneath the latter muscle and dividing into its branches, the *palpebral* running upward into the lower eyelid, the *nasal* turning inward to the nose, and the *labial* continuing downward into the lip. Each branch, spreading into a fan-shape as it neared its destination, was dissected out as far as it could be followed without mutilating the face too much. The main trunk was then seized with forceps at the foramen, drawn out as far as possible without breaking it, and cut off close to the bone, after which the various branches were divided at their farthest point of dissection. Hemorrhage was not troublesome.

The wound was cleansed with bichloride solution (1:2000), and the edges brought together with three fine silk sutures. A dry bichloride dressing was now applied and kept in place by a head-bandage.

At first considerable motor and sensory paralysis was present, but this disappeared in a fortnight, save that the right half of the upper lip still remains without motion and sensation.

The dressings and sutures were removed on the sixth day, at which time the wound was found looking well and entirely healed, without suppuration, and the wound was left uncovered. Five days later, however, distinct fluctuation was perceptible in the cicatrix, and, on a puncture being made at the upper and lower ends of the incision, about one drachm of pus was discharged. A corrosive sublimate solution (1:2000) was then injected through the pus cavity and a second dressing put on. This process was repeated two or three times until, at the end of about a week, the discharge ceased and thorough cicatrization took place.

The result of the operation was and is all that could be desired—that is, *perfect relief* from the neuralgia. The patient is now comfortable and happy, with a good appetite, which can be indulged without difficulty; sleeps well, and has gained twelve pounds in three months. He looks and feels like a new man.

CASE II.—Miss ——, aged fifty-eight; father died of Bright's disease; paternal grandparents, three uncles, and two aunts died dropsical; mother died of some spinal affection. Personal history: When three or four years old patient was also dropsical (cause not known), after which health was good until she was eighteen years of age: then she passed through an attack of typhoid fever, which left her dyspeptic; but the dyspepsia has become better in the last few years.

At the age of forty-eight patient felt a slipping at the hinge of the jaw on the left side (left temporo-maxillary articulation), soon changing into *pain and tenderness on pressure*. The pain and tenderness proceeded downward and forward along the ramus and body of the inferior maxilla, corresponding to the course taken by the inferior dental nerve. At first the trouble was entirely confined to the lower jaw, but in the course of time gradually extended to the left half of the tongue, left side of the floor of the mouth, and to the left external ear, left temple, and left side of the head. There was also great tenderness, on pressure, in all of these localities, but no swelling. Attacks would occur in series of paroxysms, lasting for weeks, followed by intervals of freedom from pain, with continual lengthening of the attacks and shortening of the time of comfort. During the last three years not a day, and in the past few months not a half hour, has elapsed without agonizing torture, the most violent paroxysms being excited by the slightest touch or motion of the jaws, as in talking, mastication, swallowing, and also without any exciting cause. I have seen her during a short conversation of fifteen minutes compelled to stop several times, clasp the face with both hands, and almost cry out in the intensity of agony. As a result of her inability to take food she became thin and anæmic.

No positive cause could be discovered. There

was no history of malaria, and all the organs seemed sound. The teeth on the affected side of the lower jaw are intact; the molars have been extracted.

After exhausting the virtues of various medicinal agents, the patient came to Charlottesville to consult me in August of this year. She came prepared to submit to *any* treatment that offered prospect of relief. I kept her under observation for a week, trying different analgesics, such as quinine, antifebrin, phenacetine, and gelsemium, without benefit. Finally, I advised total extirpation of the inferior dental nerve, including its branches, and, with her consent, performed the operation August 10, 1889.

The same technique regarding antiseptic toilet of patient, hands, and instruments was observed as in Case I., the solutions being of the same kind and almost the same strength. Likewise, whiskey and hypodermatics of atropine sulphate gr. $\frac{1}{180}$ were administered beforehand, with chloroform as the anæsthetic, which was well borne.

The parts which may be injured in this operation are: 1. *The facial artery* lying one inch in front of the angle of the lower jaw, at the anterior border of the masseter muscle. 2. *Steno's duct*, which passes from behind forward one finger's-breadth below the zygoma, and corresponding to a straight line drawn from the lower portion of the concha forward to a point midway between the ala nasi and margin of the upper lip.

I began the incision a little in front of the posterior border of the ramus, just below the level of the lobe of the ear and parotid duct, and made a curvilinear incision curving *downward* half an inch in front of the inferior maxillary angle, *forward* a little above the lower border of the jaw, and *upward* just behind and avoiding the facial artery, stopping short of the line of Steno's duct *above*. The two ends of the incision were about one and three-eighths inches apart. This flap was then raised by shoving the masseter muscle from its attachment to the outer surface of the ramus, and the bone laid bare. With a five-eighths inch trephine (half-inch would have been better) a button of bone was cut from the centre of the outer plate of the ramus and raised with a bone elevator, showing the nerve lying in its bony canal. The proximal end of the nerve being seized with forceps, and strong traction made from the direction of its origin, it was cut off with scissors close to the bone as it entered the circular cavity made by the trephine. Then, the wound being stuffed with moist antiseptic cotton and pressure employed to check the hemorrhage, a second incision was made, one inch long, horizontal in direction, over the mental foramen, through skin, fascia, and depressor anguli oris, disclosing the mental nerve (one of the terminal branches of the inferior dental) and its branches lying beneath the last-named muscle. The nerve was grasped with forceps and pulled upon, but broke off at its point of exit. The branches were then dissected out and cut off as far as possible from the foramen.

Returning to the first wound over the ramus, and chiselling away the wall of the dental canal for an eighth of an inch from the circular cavity in the ramus, so as to expose this end of the nerve, which had been divided by the distal side of the trephine, with forceps it was drawn out its entire length from the ramus to the mental foramen. In all, three and three-eighths inches of nerve-structure were removed.

The wounds were thoroughly cleansed with the bichloride douche, the solution passing from one end to the other through the bony canal, the edges brought together with fine silk sutures, six in the larger and two in the smaller, and a dry antiseptic bichloride-cotton dressing applied and held in place by a head bandage.

Hemorrhage gave no trouble, and no arteries were ligated. The inferior dental artery was cut at the same time as the nerve, the two being very close together, but soon ceased bleeding on pressure.

The sutures were removed on the eighth day, at which time the wounds had entirely healed without one drop of pus, nor was there any suppuration afterward. A second light dressing was put on and retained four days longer to give the stitch-holes time to close, infection through them being thus prevented. At the end of this time everything was taken off, and the patient discharged *perfectly relieved*, nor has the neuralgia returned since.

The day after the operation there was a very disagreeable odor about the breath, probably due to irritation and disordered secretion of the parotid gland. This entirely disappeared in three or four days.

Considerable motor paralysis was apparent on the left side of the face and lower lip, the muscles being much relaxed, and the whole face on that side presenting a swollen, expressionless appearance, caused by section of the branches of the facial nerve. This also passed away in about two weeks.

The patient is now able to converse, masticate, swallow, and sleep in perfect comfort, and is prepared to enter upon the enjoyment of life, from which she has been painfully debarred for so long.

OBSERVATIONS.—(*a*) The first operation demonstrated the risk of infection from leaving stitch-holes exposed after withdrawal of the suture; so I consider it best to use antiseptic catgut ligatures and sutures in these operations, as that material, becoming quickly absorbed, will obviate the necessity of the second dressing demanded to protect the needle punctures until their closure after withdrawing the silk.

(*b*) In the second operation the difficulty, probable impossibility, of drawing the inferior dental nerve forward through the mental foramen, even though divided in the ramus, was shown. This is due no doubt to the larger size of the nerve trunk as you follow it backward toward the brain and to the points of attachment formed by the dental and incisor branches, as well as to the fact that the direction of the mental foramen is *backward* and outward from the dental canal, forming thus an *angle* with the latter.

(*c*) In trephining the ramus, it will be found that the trephine very quickly and easily passes through the outer plate of bone, necessitating great care

to avoid dividing the nerve. Should this occur, however, no harm would be done.

(*d*) When neurectomy is performed for facial neuralgia, it may sometimes be possible to remove all the affected portion of nerve, in which case there would probably be no return of the trouble. But more often the disease may be still lurking in the peripheral part left behind; under these circumstances recurrence is possible by a reformation of nerve tissue at the point of removal, so that painful sensations may be transmitted as before; the greater the gap made by excision the less danger of recurrence.

Likewise, there may be a remnant of the malady in the proximal stump, which may act as a focus for the radiation of pain. Hence, I think that in all operations for facial neuralgia the rule should be to remove as much of the troublesome nerve and its branches as the anatomical formation of the parts will possibly allow without rendering the procedure too grave; as there is no infallible means known to science of distinguishing between healthy and unhealthy nerve when lying *in situ*, the surgeon should not be afraid of removing too much tissue.

(*e*) Before the proximal section is effected, strong traction should always be made from the great nervous centre, since the stretching thus imparted exposes more to the knife, and may also be beneficial should the stump, which is beyond reach, be diseased.

(*f*) I do not believe, from my limited experience, that this operation favors the occurrence of neuralgia in other nerves not previously affected. Predisposition to it may exist as before, and the disease may appear elsewhere, but the danger is not increased by the operative process.

Neither of the above cases has had any recurrence, and, indeed, it is difficult to imagine how there could be, considering the large gap left in the sensory tract, unless the proximal stumps are in an abnormal state.

My thanks are due to Dr. H. T. Nelson, of this city, in both of these operations for his skilful administration of the anæsthetic.

THE CONSERVATIVE TREATMENT OF COMPOUND FRACTURES, WITH AN ILLUSTRATIVE CASE.[1]

BY W. R. WHITEHEAD, M.D. (PARIS),
CONSULTING SURGEON TO THE ARAPAHOE COUNTY HOSPITAL, DENVER, COLORADO.

THE question of the conservation of a limb after a badly comminuted compound fracture is of interest to every doctor. Indeed, no general practitioner of medicine and surgery, either in the city or country, can escape responsibility in the management of such cases, when they fall to his lot, even should he summon to his aid those more skilled and experienced in the treatment of fractures.

There is nothing, in my opinion, that so thoroughly tests the practical sense and capability of a surgeon as the manner in which he manages a broken limb in which there are destruction of the soft parts and multiple fractures of the bone, complicated with an extensive external wound.

The recent and improved antiseptic treatment of all wounds gives additional interest to the result of these cases; because, provided certain physiological conditions are maintained, the question of amputation should not be considered.

When the general condition of a patient, after a bad compound fracture, is fairly good, and the main artery, vein, or nerve is not injured, then the question is generally thought to be of easy solution in favor of an attempt to save the limb. But sometimes this is not the case; and it should not be forgotten that, in such cases, the physical condition of the patient, if previously healthy and robust, is not the only factor to be considered in forming a decision as to how to manage a bad compound fracture. The will-power, courage, self-control, and endurance of the individual count for a great deal in aiding the surgeon in proper efforts at treatment.

In timid and apprehensive people, who are irresolute and faint-hearted, a quick amputation, done under ether, and after the most scrupulously exact aseptic rules, will save life, whereas long-continued conservatism, resulting in repeated counter-openings and many painful dressings, is more apt to prove fatal. Such are some of the considerations to influence the question of amputation with a prudent surgeon.

When conservative treatment is decided upon, much depends on the judicious local management and general treatment of a bad compound fracture.

It can be truly said that we cannot establish rigid rules for the treatment of fractures, which will serve as a guide.

As it is my object to be brief in my remarks, and to give practical illustrations, I have selected the following case of railroad injury to present to the Society as an example of a good result, after a very bad compound fracture of the thigh, accompanied with a crushing injury of the foot of the opposite side, and which required amputation after Pirogoff's method.

This patient is present for your inspection, and can answer questions concerning his present condition.

Charles Folkard, aged thirty-one years, on July 10, 1888, sixty or eighty miles from Denver, fell under the wheels of a freight train while in motion and had his right foot crushed close up to the ankle-joint, and his left femur broken in half a dozen or more fragments just above the knee-joint. The

[1] Read before the Colorado State Medical Society, June 18, 1889.

rectus femoris muscle was ruptured, its ruptured ends crushed, the skin covering it was rudely torn and contused, and a fragment of bone projected slightly outward, through the external wound.

Both the wounds of the foot and thigh were covered with dirt and clotted blood, and had been exposed to the air during fifteen or eighteen hours previous to his arrival at Denver at the Arapahoe County Hospital. I saw him soon after his arrival at the request of Dr. McLaughlin, the attending physician of the hospital, who, with others, assisted me in the amputation of the foot and the dressing and splinting of the opposite fractured thigh. This cut, taken from a photograph of him, shows his present condition.

The wounds were thoroughly irrigated with a mercuric chloride solution and wrapped with cloths saturated with the same, before operative interference was attempted, with the hope of lessening the inevitable septic infection which would follow the amputation of the foot.

For the first two or three days the temperature was 101° to 102°; on the third day it ran up to 103.5° F., and the removal of the dressing discovered a superficial gangrene not only of the amputation wound, but also of the wound at the seat of the fractured femur. I should state that, after the Pirogoff amputation had been dressed, six or eight pieces of bone were detached and removed from the broken femur. To do this the wound was sufficiently enlarged. and large counter-openings made for drainage. All the crushed muscle was cut away with curved scissors and knife. On opening the wounds on the third day they were covered with soft pultaceous and gangrenous masses; but the general condition of the patient was encouraging, and he was not depressed. I have seen cases after amputation presenting this appearance and in which I used formerly to apply creasote, and afterward a strong solution of carbolic acid, and I have seen this pultaceous, gangrenous coating of a wound clean off nicely in a few days under the use of such applications. So after cutting away with curved scissors most of the gangrenous surfaces, I mopped the parts with a concentrated solution of carbolic acid, then irrigated them thoroughly, and poured balsam of Peru liberally into the wounds, applied oakum, and completed the dressings. Tincture of muriate of iron in fifteen-drop doses, every three hours, and brandy and liquid nourishment were freely given.

The patient progressed favorably toward cure. After a few months a piece of dead bone was removed by incision and the sharp spoon or curette was freely used.

To-day this man is a living example of what may be accomplished by an intelligent resort to free and bold incision to favor drainage, and to the liberal use of balsam of Peru to stimulate granulations.

SOUTHERN CALIFORNIA AS A WINTER RESORT.

BY HENRY C. ALLEN, M.D.,
OF LOS ANGELES, CAL.

To those persons who suffer from pulmonary complaints, or are otherwise in delicate health, the climate of the Eastern States is most trying, and too frequently fatal. Extremes of atmospheric conditions and radical changes of temperature succeed each other with a rapidity which is a source of danger to even the healthy and robust.

As winter approaches, physicians begin to consider where to send their more delicate patients to escape the rigor of an Eastern climate, and it is not always an easy matter to decide upon a locality which will not only secure immunity from actual danger, but at the same time prove beneficial and restorative to the patient.

There are very few places within reach that combine *both* of these desiderata. Colorado possesses some undeniable advantages, from a sanatory point of view, but its climate is subject to thermal changes almost as marked as in the New England States, and therefore not generally suitable to patients whose lungs are more or less affected.

Florida, as regards temperature, is recommended for its greater equability; but the sojourner in that section of the country is exposed to malarial influ-

ences, with all its febrile concomitants, and not infrequently to the scourge of yellow fever.

Nassau possesses many advantages for phthisical sufferers, but its deficient means of communication with the outside world has a tendency to give rise to a feeling of isolation from friends and loved ones at home, which is apt to detract greatly from that mental repose so necessary for the invalid.

The Catskills, the Adirondacks, and other mountain resorts are available only in the summer season, and can offer nothing but disadvantages at the period of the year when they are most needed.

Southern California is a region which possesses every desiderata that can be imagined for invalids. Its climate is wonderfully equable, the temperature varying few degrees above or below 70°; the greater portion of rainfall occurs at night, leaving the days clear and sunshiny. This peculiarity alone secures the advantages of out-door life, with an atmosphere abundantly supplied with ozone, so necessary and beneficial to the mind and body. The softly tempered sunshine is a perpetual tonic, and the bright and clear atmosphere inspirits and invigorates.

Therapeutically, the climatic conditions in Southern California are three-fold, combining in one region the choice of sea-coast, foot-hills, and mountains, each possessing its own distinctive advantages.

The coast extends from Santa Barbara to San Diego, both beautiful places and splendidly located. San Diego has the double advantage of being situated at the base of the foot-hills and also on the coast. The distance between these two places is about 300 miles, the intervening coast being diversified by attractive towns, affording constant change of scene and easy transit. These places are eminently favorable to invalids, as they are pervaded with a restful quiet, and at the same time offer pleasant social attractions.

Here, frost is extremely rare, and snow is unknown nearer than the highest peaks of the mountains. Day follows day of bright sunshine, never sultry, with a temperature varying very few degrees of daily, monthly, and yearly average.

Twelve out of the twenty-four hours can be daily spent out of doors, basking in the sun's rays, and inhaling the invigorating and health-giving ocean breeze, which is constant and regulated by the temperate waters from the coast of Japan.

This is a very paradise for the dyspeptic sufferer. The vitalizing effects of open-air life, and the great variety of food abundant at all seasons of the year, soon restore appetite and digestion to their normal condition.

Here, the weak or exhausted nervous system or over-taxed brain will soon respond to the tonic and bracing surrounding influences, with a result unattainable by drugs or artificial restoratives.

The foot-hills and the mountains offer the therapeutic conditions of dryness and atmospheric rarefaction in proportion to their distance inland, and their elevation above the sea level. These conditions are the most favorable for those suffering from malarial complications; the air is dry and pure, and the entire absence of dampness and night-dews precludes the deadly decomposition of organic matter; there is, therefore, nothing to promote malarial, remittent or intermittent fevers; on the contrary, every condition is favorable for the complete eradication of such diseases.

All these advantages of sea-coast and mountain are within easy reach of the beautiful city of Los Angeles. Along the foot-hills, from Pasadena to San Bernardino, numerous *sanitaria* are to be found, well appointed and pleasantly located; and the various mountain resorts, such as Arrowhead, Beaumont, Switzers, etc., offer health and comfort to all who visit them.

The scenery of Southern California is beautiful and ever varying; the air is exhilarating and invigorating. To those who need or desire it, there is ample opportunity for mountain-climbing with all its resultant benefits, expanding the chest, exciting respiration, increasing muscular vigor, and sending the blood bounding through the capillaries, giving tone to the system, firmness to the flesh, and health to the invalid, making the weak strong and the strong robust.

Suitable climate is a paramount necessity for invalids, but the accessory advantages of social surroundings are quite as important; in order to obtain the maximum benefit of climatic influences, mental repose and pleasant companions are indispensable. Many an invalid, who leaves home and friends to regain at some distant resort the health which is denied him among those who are dear to him, finds himself among strangers, from whom he fails to derive the sympathy and attention that his state of health requires; he becomes despondent, and returns home unbenefited and blaming the resort for his unimproved condition. To those who are unable to be accompanied by friends or relations in their search after health, the hospitality and social temperament which pervade Southern California generally will go very far to remove the sense of loneliness and consequent yearning after home that oppresses the mind and retards physical recuperation in most of the hygienic or sanatory resorts.

It is scarcely necessary to enumerate the special diseases for the cure or alleviation of which Southern California seems specially adaptable; the advantages of that region are so numerous, that profes-

sional men will have no difficulty in discrimination of locality, the variety and choice in that region being both varied and comprehensive. It is emphatically one of the most favored spots on earth for the delicate, the consumptive, the exhausted brain-worker, and all whose systems have become impaired either by insidious disease or overtaxed energies. In the cities and larger towns, scores of persons can be met whose condition, when they first arrived, was such that they could scarcely walk, but who are now able to live an active life, and are engaged in business pursuits.

MEDICAL PROGRESS.

Massage in Rickets.—DR. SILFVERSKIÖLD speaks very favorably of massage in the treatment of rachitis. He begins with the lower extremities, using considerable pressure in a direction from below upward, and making energetic passive movements of the ankle-, knee-, and hip-joints. He then passes to the abdomen, thorax, neck, and upper extremities, exciting increased respiratory movements by making pressure on the chest. Each *séance* lasts for from ten to fifteen minutes, and the treatment is continued through a period of from four to six weeks. At the beginning, the patient usually complains of pain during the manipulations, but this soon passes away. The author claims to have obtained excellent results in a number of cases.—*The Medical Record*, October 5, 1889.

A New Cardiac Remedy.—The alkaloid discovered in the common gorse, "whin," or furze, of Europe (*Ulex Europæa*), termed ulexine, is of a most powerful character. It appears to arrest all voluntary movements and reflexes by paralyzing the motor tract of the spinal cord and the trunks of the motor nerves. The heart muscle is paralyzed, though preliminary thereto there is an increase of arterial pressure. Further, it possesses a diuretic action similar to that of caffeine, but more definitely marked.—*The Medical Age*, September 25, 1889.

Treatment of Phthisical Night-sweats.—As one of the most unpleasant and, at the same time, most frequent symptoms of pulmonary phthisis is nocturnal sweating, the recommendation of DR. B. ALEXANDER, in the *Deutsche medicinische Wochenschrift*, September 12, 1889, that hypodermatic injections of the officinal camphorated oil be made in such cases seems worthy of note, particularly as he states that he has derived very encouraging results from it. We should think, in view of the fact that camphor is capable of acting very powerfully upon the human body in moderate amount, and is also locally irritant, that such treatment might not be entirely devoid of danger, although it may prove worthy of employment when care is exercised.

Treatment for Chronic Leg Ulcers.—DR. IVAN A. PRAXIN, of St. Petersburg, warmly recommends a simple method of treatment, successfully practised by him in atonic crural ulcers with sclerotized edges. The method consists in making multiple radiating incisions, penetrating through the whole thickness of the edge, and situated so that the inner third of each incision divides the granulating bottom of the ulcer, the middle one its edge, and the outer third the adjacent healthy skin. The distance between the incisions should be equal approximately to two or three breadths of the edge. To secure gaping, plugs should be inserted into each wound for a few days. When treated after this plan, callous ulcers, varying in size from a penny piece to a half of the palm, are said to heal as swiftly as any simple ulcer, provided their neighborhood is free from inflammatory œdema and venous congestion.—*Weekly Medical Review*, Sept. 28, 1889.

Ventro-fixation of the Uterus.—DR. THIRIAR publishes in *La Clinique* an instructive clinical lecture delivered to his class at the Hôpital St. Jean, Brussels, on Ventrofixation for Prolapsus Uteri. The term he proposes to use for the operation is "hysteropexy," from ὑστερον (the uterus) and πηξις (fixation). The condition of the patient, an elderly woman, who had been suffering from complete prolapse for the last eight years, were such as to render all exploratory and operative procedures per vaginam difficult in the extreme, as she had ankylosis of the left hip, the thigh being fixed in an adducted position. There was a good deal of pain, and the uterus was visible on the outside of the vulva even when the patient was lying down. Pessaries had been tried, but were productive of no benefit. Under these circumstances it was determined to perform hysteropexy. The abdomen was opened in the linea alba between the symphysis and the umbilicus, and the uterus drawn forward and fixed to the lips of the wound by three points of strong catgut suture, an iodoform dressing being subsequently applied, which was renewed in a week's time. Seventeen days from the time of operation the wound was healed, and the uterus could be felt high up and firmly fixed, so that the patient might be considered cured. She was, however, kept in bed for three weeks longer, when the uterus, being still firmly fixed, she was allowed to get up. Unfortunately, a fortnight later the prolapsus returned, but no pain or dragging was felt. The only thing to be done was to give her a cup pessary and to discharge her as incurable. In his remarks upon the case Dr. Thiriar pointed out that the operation was a new one, and a good deal more experience was needed to determine the best method of performing it. He does not think Caneva's plan of cutting down to the peritoneum and suturing the parietal and visceral layers of peritoneum together a particularly practical one, as it prevents exploration for adhesions and removal of uterine appendages, if necessary. The plan adopted in this case was that of Leopold, except that catgut was substituted for silk, and no scraping of the epithelial layer of the peritoneum for the purpose of assisting the formation of adhesions was practised. The difficulty of fixing the uterus permanently to the abdominal wall is considerable. Müller, of Berne, who amputates the uterus and sutures the stump to the lips of the abdominal wound, has found the adhesions break down and the prolapsus recurs. Altogether Dr. Thiriar is not disposed to view hysteropexy with much favor—at all events when performed by itself—though he thinks there may be cases where the prolapsus is accompanied by hypertrophic elongation of the cervix, by rectocele or cystocele, where, as an adjunct to some other operative measure, it may

prove of value. He suggests that the chances of obtaining a permanent adhesion between the abdominal wall and the uterus would be increased by treating the uterus as Juffier treats the floating kidney—*i. e.*, by peeling off the peritoneum from a considerable surface, which is then sutured to the abdominal wall. A lesson which this case teaches is not to be in too great a hurry to publish results.—*The Lancet*, September 28, 1889.

Cocaine Poisoning.—Dr. Vinogradoff gives, in the *Ejenedêlnaya Klinicheskaya Gazeta*, an account of the post-mortem examination in a well-known and remarkable case of cocaine poisoning, where a young woman, who was suffering from a tuberculous rectal fistula, was given twenty-two grains of cocaine by means of repeated rectal injections in order to produce local anæsthesia for an operation which consisted in scraping the anterior wall of the rectum with a sharp spoon. In a quarter of an hour the patient became excited, and began to suffer from clonic spasms in the limbs, opisthotonos, and cyanosis. Death occurred from asphyxia, in spite of tracheotomy and prolonged performance of artificial respiration. At the post-mortem examination the blood was found to be fluid, and of a dark-brown color, as in cases of poisoning with chlorate of potash. There were hyperæmia of the brain and of the lungs, exudative glomerulonephritis, evidently of long standing, together with ulceration of the colon and rectum, reaching down to the submucous tissue. Microscopically, there was found albuminoid degeneration of the nerve-cells, of the cerebrum, of the heart muscle, of the liver-cells, and of the epithelium of the urinary tubules. Dr. Vinogradoff compares this with three other published cases of death from cocaine poisoning, and with cases in which large doses had been given with and without the occurrence of toxic symptoms, and shows that as much as forty-five grains have been given without any ill effects. The fatal result in the foregoing case—which led to the suicide of the surgeon who operated—is to be ascribed to the increased power of absorption of the ulcerated intestinal wall, and to the retardation of the kidney secretion by the diseased condition of the glomeruli. It would, therefore, appear that when there is any question of giving large doses of cocaine a careful examination should be made of the condition of the kidneys, and if there is any ground for supposing them to be diseased or functionally inactive the greatest caution should be employed. It may be remembered that before operating the unfortunate surgeon asked one of his colleagues, who was a professor of therapeutics. what dose of cocaine might safely be given, the answer being, "Not more than two grains." So that the greatest diversity of opinion exists regarding the maximum dose of the drug.—*The Lancet*, September 28, 1889.

Pathology of Severe Burns.—Dr. Oscar Silbermann, of Breslau, studying the clinical and pathological signs of the destruction of numerous red-blood corpuscles, found by his experiments: 1. That after extensive burns of the skin the red blood-corpuscles alter their form and lose their power of resistance to heat, drying, compression, and staining. 2. In consequence of these alterations numerous thromboses in the arterioles and capillaries, especially in the finer branches of the pulmonary artery, occur, leading to stasis in different organs—*e. i.*, lungs, kidneys, stomach, bowels, liver, spleen, skin, and brain. 3. The large distribution of the pulmonary capillary circulation produces a considerable impediment to the emptying of the right heart, and serious venous congestion as well as dangerous arterial anæmia. 4. This state, coupled with the above-mentioned symptoms, leads to bleeding and parenchymatous alterations in the affected organs. 5. The interference with the circulation also produces dyspnœa, a small pulse, angina, eclampsia, and anuria, as well as a remarkably low temperature.—*The Lancet*, September 28, 1889.

Pea Soup as a Substitute for Beef-tea.—Dr. Ris, of Kloten, Switzerland, says *The British Medical Journal* of September 28th, emphatically recommends pea soup as an excellent substitute for beef-tea for invalids, convalescents, and more especially for patients suffering from cancer of the stomach, or diabetes mellitus. Take peas, water, and sufficient amount of some vegetables suitable for soup; add one-half per cent. of carbonate of soda; and boil the whole until the peas are completely disintegrated; then let the soup stand until sedimentation is complete, and decant the fairly clear thin fluid above the deposit. The product is stated to resemble a good meat soup in its taste, to be at least equally digestible, and, at the same time, to surpass the very best meat soup in nutritive value. The latter statement may appear surprising, but the author reminds us that peas (as well as beans or lentils, either of which may be used instead of peas) contain a considerable portion of legumen—that is, a vegetable albumen which is easily soluble in a faintly alkaline water, is not coagulated by heat, is easily absorbed, and equal to the albumen of eggs in its nutritiousness.

The Microbes of Tumors.—Dr. Verneuil's conclusions as to the presence and influence of pathogenic microbes in tumors are as follows: Tissue of new formation of a malignant character, such as cancer, sarcoma, epithelioma, may at a given moment contain different microbes, of which neither the origin, kind, nor quantity can be accurately determined. The presence of these microbes may for a long time be innocuous, but, on the other hand, in some cases results in the rapid increase in softening and ulceration of the tumor. Microbes are not found in lipoma, fibroma, nor in cancers and sarcomas characterized by an initial slow development, but are almost always detected in softened and ulcerated tissue. These microbes, besides exercising a morbid influence on the surrounding tissues, affect also the general economy, and constitute a febrile element. During excision of the morbid growth, they are communicated to other parts of the wound, and are capable of provoking septicæmia, which may prove fatal.—*The British Medical Journal*, September 28, 1889.

The Choice of Operations for Vesical Calculus.—In an article in the October number of the *University Medical Magazine*, Prof. D. Hayes Agnew reaches the following conclusions:

First. All cases of vesical calculus in patients over fifteen years of age, with sound urethras, and in whom the stone is not too large nor too hard, should be treated by litholapaxy.

Second. All children under fifteen should be treated by lateral lithotomy.

Third. In the case of very large stones, suprapubic lithotomy should be substituted for either litholapaxy or perineal lithotomy.

Fourth. In adults, where perineal lithotomy becomes necessary, the median operation is to be preferred, provided the stone does not exceed three-quarters of an inch in diameter.

A Case of Nutmeg Poisoning.—On August 14, 1889, DR. AMOS SAWYER, of Hillsboro', was called to see a boy aged three. He found the little patient with a normal temperature and respiration; pulse regular, but a little slow; all the muscles completely relaxed. An attempt to arouse him failed, his head falling in whichever way the body inclined. An examination of the pupils revealed complete dilatation. Dr. Sawyer felt certain that this condition was the effect of something that the child had eaten, and, upon inquiry, was informed that he had, unknown to his mother, appropriated from her spice-box five large nutmegs, which he informed his little sister was his tobacco, and which by noon he had managed to consume, presumably spitting out the bulk of the spice. About 2 P.M. he complained of feeling dizzy and soon fell asleep, and they had been unable to arouse him. He had had one movement from the bowels, and had urinated twice while in this condition. There had been no delirium. He recovered consciousness as if awakening from a natural slumber, but with the greatest dislike for nutmegs, after having slept thirty consecutive hours.—*New York Med. Journal*, September 28, 1889.

Poisoning by Tansy.—The following case is reported in the *Medical Record* of September 28th:

"Mrs. K., not having her menses for some five weeks, thought herself pregnant, and not wishing to have any more children followed a neighbor's advice and set about taking five drops of the oil of tansy every few hours. Not succeeding in bringing about her menses, she took about one drachm on sitting down to breakfast. She felt no unusual symptoms for about a half-hour, when a 'dizzy sensation' came over her. She ran out doors, and a moment later was picked up by her husband in convulsions resembling epilepsy. There were present spasmodic contractions of the limbs, frothing at the mouth, and unconsciousness. The physician found her in this state, with a thready pulse, very intermittent, respiration scarcely perceptible, and cyanotic. Thinking there was enough food in the stomach from her breakfast to hold a good part of the oil yet unabsorbed, he administered apomorphia muriate, gr. $\frac{1}{10}$, hypodermatically. In a few moments she vomited very profusely, there being a great amount of gastric juice. After this she revived by repeated doses of brandy, but did not regain her consciousness for two or three hours. She remembered nothing about what had happened. Her tongue was lacerated, as is often seen after a severe epileptic fit, the pulse ran up to 120, and temperature to 101° F. for the rest of the day. Headache persisted for three days, and fainting every three or four hours for two days. The menses made their appearance, but not from the action of the drug, for she was nursing a child about six months of age, and they had been irregular. There were no signs of an abortion."

Fatal Result of a Wasp Sting.—The following case is reported in the *British Medical Journal* of September 21st:

A farm laborer, aged twenty-eight, was stung on the right side of the neck by a wasp, on August the 29th. He took no notice of it; but the next day, late in the evening, both sides of his neck began to swell, and on Saturday, the 31st, things looked so serious that a physician was sent for. He found the neck, cheeks, lower jaw, and even the pectoral muscles attacked with acute cellulitis. Careful inquiry elicited the fact of the wasp sting, and that when he received the lesion he had a boil under his left ear: also that, though a very healthy looking and well-nourished man, he was sadly troubled with constipation, and a member of a family among whom boils and abscesses were very common—thus evidently showing a natural tendency to suppurative mischief. The treatment consisted of the use of antiseptics both internally and externally, hot poultices, milk *ad libitum*, stimulants as far as could be tolerated, and plenty of fresh air; but, in spite of all, septicæmia, with violent rigors and delirium, supervened on the sixth day, and he died on the ninth day after the reception of the sting. No abscess formed, but the cervical tissues were very much indurated. August 29th was a very hot day, and, following as it did a period of rainy weather, the conditions were very favorable to the rapid decomposition of dead organic matter, whether animal or vegetable, and it is highly probable the wasp may have been feeding on some putrescent material previous to stinging the unfortunate man. As he had nothing whatever to do with the cattle, and as all the horses and cattle on the farm where he was employed are quite healthy, it is clear this was not a case of anthrax or malignant pustule, but death due to a wasp sting received when the system was not healthy.

Styrone, an Antiseptic.—We read in the *Medical Age* that styrone is again coming into use as an antiseptic. DR. H. A. A. BEACH was first to call attention to it in 1879; its cost, however, then precluded its extensive use. It now can be prepared at a reasonable figure and bids fair to enter into competition with other antiseptics. Styrone is a compound of styrax and balsam of Peru, and it is said to be especially valuable on account of its efficiency, non-poisonous character, and agreeable odor.

Lemon-juice in Epistaxis.—DR. FANCHON, in the *Revue Général de Clin. et de Thérap.*, speaks most highly of the value of lemon-juice for the local treatment of stubborn nose-bleed, In one case, in which the hemorrhage was most severe, and in which plugging of the anterior nares had been resorted to without avail, a single injection of lemon-juice made, with the aid of a glass syringe, into the nostril that was bleeding, immediately arrested the hemorrhage.

Transplanting of a Chicken's Cornea.—DR. GRAVENIGO, of the University of Padua, is said to have successfully performed an operation which hitherto has been vainly tried by various experimenters, both in France and elsewhere. The operation consists in the grafting of a chicken's cornea into the human eye. In the successful case reported by Gravenigo the graft is said to have united quickly and formed a cornea which was very transparent, shining, and convex.—*Le Progrès Méd.*, July 13, 1889.

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MASSAGE OF THE HEART.

OERTEL'S mountain treatment of valvular disease has shown no signs of becoming popularized, at least in this country, where other and safer means of improving cardiac tone are wisely preferred. Benefit from hill-climbing undoubtedly accrues to some patients, and results partly from the general hygienic measures also employed, namely, open air, cheerful surroundings, and carefully selected food; partly also from the direct stimulating effect of exertion on the circulation. These useful features, great as they certainly seem, are overbalanced by the risks of dilatation and exhaustion of an already tired heart, dangers by no means theoretical.

Arrayed against Oertel are Liebenstein, Nothnagel, Lichtheim, Schott, Lépine, and Loomis, who have expressed themselves in more or less positive terms, Schott reporting several cases in which the treatment was of decided injury. Da Costa does not seem to have considered the method worthy of trial, and in his paper before the Association of American Physicians (*Amer. Journ. Med. Sciences*, Nov. 1888) says that his experience with valvular disease in the mountainous regions of Colorado would not incline him favorably to it. Franz, Hausman, Barr, and others who favor the treatment, do so guardedly and for selected cases only. No one has denied that with the dangers eliminated the method would be of value. Oertel now claims to have discovered, in what he terms massage of the heart, a safe method of attaining the same nutrition and circulatory improvements as in hill-climbing.

Donders long ago, in studying the effects of respiration on the circulation and heart, demonstrated that expiration aided the cardiac systole. Oertel's new method is largely based upon this fact, and might be termed an adjunct to expiration. The method, as described in his first paper in the *Munch. med. Wochenschr.*, Sept. 10, 1889, consists in the *masseur* placing his hands on each side of the patient's thorax at the height of the fifth or sixth rib. At the beginning of expiration firm pressure is made while moving the hands obliquely to the ensiform cartilage, the movement occupying the entire expiratory period. This pressure evidently must cause a more complete expiration than normal, which assists the heart in systole, hastens the blood current, and renders oxygenation more perfect. The direct pressure on the surface of the heart must in many patients be extremely slight, though Oertel considers it an important factor. In some cases use is made of prolonged expiration on the part of the patient.

Following this semi-artificial expiration is an increased inspiratory effort which in its turn aids the cardiac diastole. The blood current being accelerated and oxygenation rendered more perfect, it follows that nutrition is improved, not only of the entire system, but of the cardiac walls. This, in brief, is the theory and practice of Oertel's new treatment of failing heart power. Theoretically, there is a possibility of the prolonged inspiration dilating a weakened heart; practically, we think the danger may be ignored in all but the most advanced cases.

As yet, Oertel has made no comments on the use of drugs in connection with this treatment, but we cannot see why any of the cardiac tonics should not be used. The method is based on sound physiological principles, and seems worthy of careful trial. Oertel's standing in the profession renders it necessary that attention be paid to his statements, and we hope that the profession on this side of the water will at least give it a fair trial.

CARBOLIC ACID.

WITH the characteristic perversity of the law, we have a condition of affairs in the State of Pennsylvania which forbids druggists to sell to irresponsible parties substances which are known to possess distinctly poisonous properties, and yet it may be said

that many of the drugs included in this far-reaching law do not possess very distinct toxic power unless taken in large quantities.

Either because our legislators came to the conclusion that it would be well for the people in general to become easily possessed of carbolic acid for the purposes of disinfection, or because they were ignorant of the fearful power which it possesses as a poison, this substance is at present allowed to be sold by any one and to any one who may ask for it. As a consequence, within the last few years the number of cases of poisoning by this acid have very largely increased, and instead of such suicides becoming medical curiosities, they have ceased to attract the general attention which was given them when it was first resorted to.

Considering that carbolic acid has been proved by researches of the committee appointed by the American Public Health Association to be a substance far inferior to many others in germicidal power, and in view of the fact that it is, with one exception, perhaps the most rapidly acting poison known, we think that some law in regard to its sale should go into effect as soon as possible. That the acid is capable of acting with extraordinary rapidity if taken in large amount has not only been proved by a large number of cases on the continent of Europe and in England, but has found ample substantiation in those cases which have occurred in this country. Two of these cases with which we are acquainted emphasize this point very well. One was that of a marine hospital steward who, by mistake, swallowed an unknown quantity of the acid. He was heard to groan, step out of a small room, fall senseless in the passage-way, and was dead inside of three minutes. Still another case, occurring in this city, was that of a man who entered a drug-store, bought a vial of carbolic acid, tossed its contents down before he could be stopped, strode to the door of the store, and dropped dead on the step. That the profession is beginning to recognize the frightful power of this drug is evidenced not only by the cautions which are now given by physicians to their patients when directed to use it, but also by the articles which from time to time appear in the current medical journals. At the same time there are several text-books, one or two in particular for distribution among the laity, which recommend carbolic acid highly for its antiseptic powers, and its use in drains and cesspools, but contain no word of warning as to the character of its action when taken into the body, nor any reference to the antidotes which should be employed in case the poison be swallowed. A sufficient number of cases of poisoning by carbolic acid have occurred in the United Kingdom to force the medical profession in Ireland to request that the acid be placed upon the list of poisons. To this end the President and Fellows of the King's and Queen's College of Physicians in Ireland have requested the Privy Council to take such action as will necessitate more care in its general sale. It is customary in some places to require druggists, when selling a poison without a physician's prescription, to include, upon their labels, a brief account of the treatment which should be instituted should mistakes be made as to the contents of the bottle. Even supposing it is impossible to pass a law which will control the sale of this and similar drugs sufficiently to prevent persons with suicidal tendencies from using it, it might be well for druggists to be instructed to recommend, by a label, Epsom or Glauber's salts as the proper antidote to be employed, and to warn purchasers that great care should be exercised that children and other irresponsible persons should not be allowed to handle it.

THE TREATMENT OF HEPATIC ABSCESS.

THE interesting case of liver abscess reported by DR. TOMPKINS in the current number of THE NEWS, suggests some observations in regard to the recent advancements in the surgical treatment of this affection. The ideas of surgeons have, in the last few years, become fairly well crystallized in regard to the treatment of abscess affecting the liver. Although a great variety of means for relief are to be found in the standing text-books, the writings of more modern investigators point to the earliest possible incision as being, beyond all others, the most successful treatment. Thierfelder's interesting statistics give absolute proof of the justice of this opinion.

For the proper application of this principle an early diagnosis is absolutely essential. The typical symptoms of abscess are rigors, fever, tenderness over the liver, pain which is often referred to the right shoulder and is severe in character, steady emaciation, and rarely jaundice, together with the appearance of a tumor in the hepatic region.

The prognosis, if no surgical treatment is instituted, is exceedingly grave. Contrary to the accepted doctrine that pus points outwardly, it is as prone to discharge into the lungs, stomach, intes-

tines, or peritoneal cavity as to find its way to the surface. The case reported is an instance of this, the abscess pointing toward the surface and into the intestine.

Where typical signs are present, or where there is suspicion that liver abscess has formed, or is forming, the surgeon should at once perform an exploratory laparotomy; if swelling is present, the incision should be made over its most prominent part. If this important guide is absent, the incision should begin at the costo-chondral articulation of the tenth rib, and be carried directly downward in the long axis of the body. If the surgeon fears that his antiseptic precautions or his manual skill are not sufficient to prevent the entrance of microörganisms or blood into the peritoneal cavity, he can satisfactorily explore the liver surface by Bardenheuer's, or the so-called extra-peritoneal incision—that is, the knife may be carried down to, but not through, the peritoneum. The latter may be stripped from the parietes, and the fingers may be carried over nearly the entire surface of the liver with the interposition of only a thin membrane. In this way swellings, irregularities in surface, or fluctuation can be readily discovered.

If adhesions have not formed between the liver and peritoneum, the surgeon should suture these two surfaces together, and then, having so placed his threads that the peritoneal cavity is absolutely protected against the entrance of pus, should freely incise the abscess cavity, and should make ample provision for drainage.

Where, in spite of the use of large tubes, pus accumulates, the cotton ropes should be employed; these should be carried to the bottom of the drainage tubes, and removed every half hour or hour, if necessary. Under this treatment, the prognosis is exceedingly favorable. The liver heals with remarkable rapidity, sometimes an extensive abscess cavity being closed in a few days. Even though there be multiple abscesses, the evacuation of the principal cavity lessens pressure in this region to such an extent that the smaller abscesses will probably rupture spontaneously in the same direction. At the time of operation the surgeon should carefully explore for secondary abscesses, and, if found, should, by means of his finger or the point of a blunt instrument, break through the walls separating them from the major cavity.

In regard to the etiology of the case reported by Dr. Tompkins, it is unfortunate that, at the time of the autopsy, the large intestine and rectum were not examined. Although so-called spontaneous liver abscess has occurred, and the traumatic form is well recognized, by far the most common variety is that due to septic matter carried from the rectum or large intestine. A history of preëxisting diarrhœa or dysentery is almost conclusive evidence that this is the cause of abscess formation. It also suggests the probability of the abscess being multiple, and indicates that there should be made, not merely an incision, but a thorough exploration, with the idea of evacuating all the pus which the liver contains.

There have been many cases successfully treated by means of aspiration, but both statistics and anatomical reasoning would strongly indicate exploratory laparotomy. We can never be sure, unless superficial signs of inflammation are present, that the liver is adherent to the parietes. Any puncture into this organ would, if such adhesions had not taken place, expose the patient to the risks of septic peritonitis. Thorough evacuation, either through the canula or aspirating needle, is absolutely impossible, and the surgeon is left in ignorance as to the existence or non-existence of more than a single abscess.

Under any circumstances laparotomy can do no harm, and in the majority of instances it leads directly to the saving of life.

FISH POISONING.

During the past few years, through the labors of Brieger, Vaughan, Semi, Nencki, Gautier, and a host of lesser lights, our knowledge of food poisons has greatly increased, and the explanation of those instances in which a number of individuals are simultaneously seized with toxic symptoms after partaking of a particular article of food is no longer sought in the cooking utensils or in intentional adulteration. Among the staples which are known to have frequently caused poisoning are fish, and in countries where they form a large part of the food consumed, it has been recognized for centuries that by them poisoning would occasionally be caused, some species being more dangerous than others. This was usually explained by the supposition that the fish subsisted on food deleterious to man, or that they possessed inherent poisonous properties. So far as is now known, certain members of the family Scoparænidæ, and during spawning a few varieties of herring, alone are toxic *per se*, and

it is not proved that any species live upon food poisonous to man—putrefactive changes, with the development of those subtle compounds named by Selmi the ptomaines, being the toxic agents in the vast majority of cases.

In the *Lancet* of September 21st Lawrence-Hamilton, taking as his text "Ice Spoils Fish," reviews in detail and with many practical comments, the entire subject of preserving fish for the market—a subject of great and growing importance to physicians, for the belief that many of the acute intestinal disorders are in reality cases of ptomaine poisoning, and, therefore, preventable diseases, is steadily gaining ground. In this country more attention has been given to poisoning by milk and cheese; but when we stop to consider the methods by which fish are preserved from the time they leave the water, the ease with which they putrefy, and the great numbers consumed in all seasons, the hygienic importance of the subject can scarcely be overestimated. According to Lawrence-Hamilton, the proneness of fish to decomposition is due to the fact that, differing from mammals, all their tissues, including the blood and lymph, contain bacteria, and also to their readiness to absorb water when dead—water in most cases filthy from long-used boxes, baskets, vessel-holds, and market counters. Further, slight damage to the surface or bruising of the flesh opens a channel for the entrance and multiplication of putrefactive bacteria. This latter fact is so well recognized that in Great Britain railway transportation reduces the market value of fish twenty-five per cent. We can hardly believe with Lawrence-Hamilton that all chemicals, including common salt, are valueless as preservatives. Salt in sufficient quantities certainly preserves most fish, although Boehm has stated that in Russia poisoning with salted sturgeon is more frequent than with the fresh fish. That ice spoils fish is probably due more to the fact that it gives a false sense of security than to other reasons; although, as every housewife knows, all meats spoil more quickly *after* having been on ice. It is the moisture, maceration, and bruising that cause this tendency, for both meat and fish may be kept for long periods in a cold, *dry* atmosphere.

The prophylactic measures suggested by this review of Lawrence-Hamilton's paper are: First, to free the flesh as much as possible from putrefactive bacteria; all fish should be bled and gutted immediately after catching. "What butcher would dream of cutting meat from an ungutted or unbled carcass?" By the Scandinavian fishermen this is done, but in Great Britain and this country, we are informed by dealers, fish are shipped to market as taken from the water.

Secondly, that they should be transported with great care and freedom from bruising, and kept in a cold, dry air, such as is now furnished with several kinds of refrigerators. How far these measures are complied with is demonstrated by a few moments in any fish market.

The time is rapidly approaching—unfortunately for us, more slowly in this country than in many others—when medical thought will be directed as much to the prevention as to the cure of disease, and governments will be compelled to recognize and act upon wise prophylactic suggestions. When that time arrives stringent laws will protect the consumer from careless dealers; until then it is our duty to educate our patients to the dangers threatened by improperly preserved foods.

REVIEWS.

THE PHYSICIANS' LIBRARY. DISORDERED DIGESTION AND DYSPEPSIA. By FRANK WOODBURY, A.M., M.D. 12mo. Detroit: George S. Davis, 1889.

THIS paper-bound book is one of 77 pages, written by a former teacher in one of the medical schools of Philadelphia, who has placed the entire subject of gastric disorders, at least in their functional forms, with sufficient clearness to be readily understood, even by persons possessing very little medical knowledge. It contains chapters on "Digestion and its Disorders," the "Symptoms and Forms of Dyspepsia," "Treatment of Dyspepsia," and "Dietetic Hints for Dyspeptics." In the preface a brief review of the recent scientific changes in regard to gastrionic disorders is given, and scattered through the book are several tables giving differential diagnoses which aid in the separation of disordered states quite well.

The book is printed in the same style as the rest of the series, and while it lacks the thoroughness which the subject might be thought to command, and pretends to no originality, it will probably prove valuable to many physicians in giving them useful hints.

THE STORY OF BACTERIA, AND THEIR RELATIONS TO HEALTH AND DISEASE. By T. MITCHELL PRUDDEN, M.D. 12mo. New York: G. P. Putnam's Sons, 1889.

As stated by the author in his preface to this little volume, his chief aim has been to present the main features of the life-history of bacteria in such a form that the layman may readily understand them.

Difficult as is the task of writing or speaking upon an abstruse scientific subject in terms that are not too technical for the medically uneducated mind to grasp, the author has admirably succeeded in not only placing in

simple and readily comprehended language the "story of the bacteria," but has so clothed the plain narration of facts in the garb of fiction that in places the book reads almost like a fairy tale. After describing some of the more generally understood and more easily appreciated facts of biology, he leads the reader by easy stages toward the comprehension of the more intricate parts of the subject, Even the relation of phagocytes to bacteria is so touched upon in non-technical terms that he conveys to the reader a distinct idea of the outlines of the processes involved, without becoming too deeply surrounded by technicalities.

Probably the chief merit of the book, apart from the interesting character of its contents, is the manner in which the author deals with the *rôle* played by bacteria in various preventable diseases, deducing therefrom the well-understood, but little heeded, prophylactic measures that should be adopted.

The author has fulfilled his task well in producing a brochure that will be read not only with interest by physicians but also with understanding by the unprofessional reader.

HANDBOOK OF THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT, NOSE, AND NASO-PHARYNX. By CARL SEILER, M.D. Third edition, thoroughly revised and greatly enlarged. 12mo., pp. 374. Illustrated with two lithographic plates and wood engravings. Philadelphia: Lea Brothers & Co., 1889.

TEN years ago the first edition of this little book appeared in the market, and the fact that already two editions have been exhausted proves that, though it deals almost solely with a special subject, it has, nevertheless, met with the approval of the profession. The book is enhanced in value very considerably, at least to the tyro in laryngology by the handsome lithographic illustrations which it contains, also by the unusually clear engravings which are scattered profusely through the work. The instruments which are to be employed by the specialist in this branch of medicine are also clearly portrayed. In regard to the book itself, we think that it is unusually clearly written, and that a very large amount of valuable information has been placed in a small space between its covers. Attention has been paid in a thorough manner to the rapidly increasing employment of electricity in the treatment of the diseases commonly seen by persons operating on the throat and nose.

SOCIETY PROCEEDINGS.

AMERICAN GYNECOLOGICAL SOCIETY.

Fourteenth Annual Meeting held at the Institute of Technology, Boston, Mass., September 17, 18, 19, 1889.

THIRD DAY—THURSDAY, SEPTEMBER 19TH.

MORNING SESSION.

Although DR. A. MARTIN, of Berlin, was absent, his paper entitled

THE RELATION OF UTERINE RETRO-DEVIATION TO PREGNANCY

was read.

The condition of retro-deviation of the uterus was especially significant with reference to pregnancy—in fact, pregnancy was impossible in many cases in which such faulty position existed. The author's experience included seventy-nine cases in hospital and forty-two in private practice, in which pregnancy was thus complicated. In all the cases there were typical symptoms resulting from the retro-deviation. It was important to consider two questions in this connection: 1st. Was retro-deviation a bar to pregnancy? 2d. Was retro-deviation during pregnancy as serious a condition as was commonly supposed? In many of the author's cases there had been important symptoms including hemorrhage, uterine catarrh, tubal disorders, and, in some cases, peritonitis. Cases were narrated in which pregnancy continued to term without the occurrence of any serious disturbing symptoms. If the retro-deviation were congenital, there was sufficient evidence that it might result in sterility. The author did not accept the assertion that all cases of retroflexion of the gravid uterus in multiparæ were due to improper treatment during childbed. In most of his cases conception occurred in uteri which were already retroflexed, an evidence that the displacement was not a bar to conception, and this was true whether the displacement was congenital or acquired. In all cases of sterility with uterine retro-displacement it was essential to ascertain the existence or non-existence of impotence in the husband. Catarrhs and abrasions of the uterus required local treatment the same as in the non-gravid condition. Abortion occurred only four times among his cases. In ninety-seven of them delivery was at term. The faulty position in his cases was discovered at periods ranging from the second to the sixth month. The treatment consisted in first having the bladder evacuated, then, with the patient in the knee-elbow position, the uterus should be replaced, if possible, with pressure from one or two fingers, a suitable pessary being introduced to hold it after such replacement. The pessary might remain until the sixth month, and in cases in which its use was inadmissible, or in which adhesions prevented the replacement of the organ, graduated pressure with a vaginal tampon of cotton-wool could be used. The author's results had been very favorable. Grave complications are now recognized earlier than they used to be. It is not to be doubted that many cases of retroflexion in the gravid uterus cause no symptoms, and the cases go to term, no diagnosis of a morbid condition being made. In case all efforts at replacing the uterus or holding it when replaced should fail, one must take into consideration the propriety of emptying the organ, or, as an extreme measure, extirpating it.

DR. BACHE EMMET had seen few cases in which pregnancy occurred in the retroflexed organ. Indeed, he had considered the retroflexion a bar to pregnancy in most of the cases which were brought to his notice. If the displacement was not or could not be corrected, it was at least desirable, and usually possible, to raise the uterus in the pelvis, which would favor conception, or its continuance, if already existing.

DR. HOWARD KELLY had seen conception follow the cure of uterine retro-deviations. He believed that in most of the cases in which pregnancy coexisted with uterine deviation a spontaneous cure resulted, and that in a minority only was there abortion or other severe accident. A kindred fact consisted in the faulty development of the uterus during pregnancy, though its posi-

tion might have been normal when conception occurred. As an extreme resort, he could conceive of the necessity of opening the abdomen during gestation and relieving the displacement.

DR. T. A. EMMET believed that backward displacement never occurred without the existence of local inflammation. He did not think such malposition would have any bearing upon the question of conception, especially if the Fallopian tubes were sufficiently patent to permit the passage of the spermatozoa. He had seen cases in which he believed that replacement with vaginal packing had prevented abortion. He preferred the knee-elbow position for replacement; but great care was necessary in performing this operation, otherwise an abortion would be induced. The use of pessaries in this condition was attended with danger.

DR. A. J. C. SKENE could not conceive of any condition which would justify extirpation of the uterus, however grave the displacement.

DR. H. F. HANKS, of New York, thought that many cases of abortion could be prevented in the retroflexed gravid uterus, if judicious means were taken to relieve the displacement. Careful packing of the vagina was better for such a purpose than the use of pessaries.

DR. J. CHADWICK objected to severe measures of treatment in the condition under discussion. He thought that abortion was not a common result of the condition. Pessaries were allowable in his opinion. If there were retroflexion with adhesions, pregnancy rarely occurred.

DR. BOLDT stated that cases had been reported in which death had resulted from inability to reduce the gravid retroflexed uterus. In such cases an abdominal section would have been justifiable.

DR. E. C. GEHRUNG, of St. Louis, Mo., read a paper entitled

RESULTS OF REPRESSION OF MENSTRUATION.

It was a demonstrated fact that menstruation might with safety be stopped by the use of the vaginal or uterine tampon in cases in which the patient could not afford the loss of blood. The experience of the year since the reader had propounded his views on this subject had made his convictions firmer that this method of treatment was useful both for prophylaxis and cure. Menstruation did not necessarily include a sanguineous discharge. The menstrual molimina might be present without it. It was but an accidental accompaniment of ovulation, etc., and would be as harmful as repeated hemorrhage from any other source, were its effect not modified in many cases by the force of transmitted habit. Sanguineous menstruation is a potent cause of anæmia in women, and he believed it could serve no useful purpose, any more than did the old doctrine of Broussais that men should be bled monthly to relieve plethora. If plethora really existed, it was best treated by redistribution, not abstraction, of blood. If, as is asserted, bleeding sometimes acts a safety-valve, it is at least a safety-valve which should rarely be used. Even if it is a fact that women make blood rapidly, this is no advantage if they are to lose it as rapidly as it is made. It is a dangerous error that bleeding disposes of superfluous elements. The best method for stopping menstruation consists in the use of the vaginal tampon. It gives no shock to the nervous system, neither does it poison the blood, as might be the case if ergot or other drugs are used. If metrorrhagia or menorrhagia existed, the tampon should be used regardless of menstruation. Scanty menstruation is observed in anæmic women, and is usually the result of previous excessive losses. Repression in such cases tends to relieve the nervous symptoms, the anæmia, etc. In women with amenorrhœa it is generally necessary to relieve a depraved general condition, and when menstruation reappears the tampon should be used periodically until the patient becomes strong again. The paradox in this case is only apparent; the first step is to remove the cause, the second to correct the trouble. Certain neuroses and neuralgias are also amenable to treatment by the method under consideration. No bad results had been seen or heard of from the use of this method. It was believed that it would serve as a means of relief in many cases of uterine and pelvic trouble which would otherwise necessitate mutilating operations.

DR. BOLDT could not believe that menstruation was a pathological condition, nor that the bleeding which formed an important element of it, was an accidental hemorrhage. The condition of the majority of women refuted the assertion that continued menstruation tended to produce anæmia. That anæmia might be independent of menstruation was shown by its persistence in many cases in which the uterine appendages were removed and a premature menopause induced. That systematic bleeding was a functional habit in women was also demonstrated, he thought, in those cases in which *purpura hemorrhagica* recurred with regularity after the ovaries and tubes had been lost. No one would deny that a tampon was advisable if menstrual hemorrhage was excessive, but the speaker doubted if it would ever be wise to leave it in place as long as seventy-two hours, which had been recommended. If it were to be used at all to check excessive flowing, it was well to begin its use two or three days before menstruation was due.

DR. A. W. JOHNSTONE thought the reader had made a mistake in considering menstruation pathological as it was as necessary a function as respiration, its object probably being to wash away over-ripe lymphoid corpuscles. Among the higher animals, in which there is a discharge which more closely resembles menstruation than that which occurs in any of the other animals, and in which the uterus tends to the vertical rather than the horizontal posture, as in woman, this discharge is especially noteworthy in those varieties which stand particularly erect or nearly so. There would be no use in the vaginal tampon, as a means of repressing menstruation, unless one should also close the mouth of the Fallopian tubes. Harm from menstruation proceeded rather from nervous than from vascular influence. The tampon would be more or less dangerous, as congestion of the broad ligaments would be unrelieved, stasis would result, and an indication for operative measures upon the uterine appendages would be favored. The bloody discharge which occurred so frequently after laparotomy was probably due to the squeezing by the ligature of the nerve described by himself which was situated at the angle formed by the Fallopian tube with the uterus. He believed that menstruation was a portion of the mechanism for preparing woman for pregnancy, the end for which she seems physiologically destined.

DR. A. R. JACKSON did not feel satisfied with a theoretical explanation when it was in opposition to the facts of

observation. He had practised repression after the manner described by the reader for many years in cases in which menstruation was profuse and had seen only benefit as to the result. Profuse flowing must eventually result in anæmia, and, in so far as it applied to this, the method of the reader was endorsed.

DR. GEHRUNG, in closing, stated that his proposition was to repress menstruation only in cases in which the patient could not well bear the loss of the blood. He was unwilling to agree with Dr. Johnstone that the free bleeding of menstruation was dependent on nervous influence, and thought it depended rather on the weakness of the womb, as a structure, and its vessels.

DR. H. J. BOLDT, of New York, read a paper entitled

INTERMEDIATE TRACHELORRHAPHY.

The majority of gynecologists were willing to admit that a great variety of ills might follow laceration of the cervix uteri, Noeggerath being one of the few prominent physicians who violently oppose it. Bad symptoms might appear as soon as three months after parturition. In an analysis of the histories of 3000 childbearing women, 109 were found in which symptoms were evidently referable to a tear of the cervix. If then bad symptoms were presumable, at a more or less remote period, in women who had suffered severe injury to the cervical tissue at parturition would it not be expedient to anticipate such trouble by performing trachelorrhaphy as soon as possible after the puerperal period was ended? The reader of the paper had acted upon this proposition in 26 cases, in only 4 of which was success wanting. The operation might be performed in one's office, and without anæsthesia, as it was unattended with pain. The surfaces of the torn portions were scraped, the angles freshened, and catgut sutures were carefully and not too tightly placed. A straight trocar needle was used, a very sharp scraper, and a tenaculum devised for the purpose. The object of the operation was to prevent or avoid the conditions for which Emmet's operation was indicated.

DR. BACHE EMMET thought that the object which the reader of the paper sought to obtain by his operation was a good one. He also thought that if the work of the obstetrician had been done properly many of the cases which require treatment would not need it. He did not think it well to anticipate symptoms, for one could not say in advance how well nature would do the work of repair, for that reason he did not believe the reader's operation would often be indicated. It would seem to him also that the tissues were not in good condition for a successful operation so soon after labor as had been advised. He believed it unadvisable to do such operations in one's office, and furthermore believed that the operation was one which required the skill of a gynecologist and should not be done by the general practitioner.

DR. SKENE did not approve of doing trachelorrhaphy until the appropriate symptoms appeared which indicated it. He was also opposed to doing such operations without an anæsthetic and in one's office.

DR. B. F. BAER, of Philadelphia, understood the question of the paper to be whether laceration of the cervix *per se* was or was not a lesion. If it were to be considered a lesion, the reader was right in proposing that an obstetric patient with such a lesion should not be discharged until that lesion was repaired.

DR. T. A. EMMET felt that the proposed operation had no place, that trachelorrhaphy should not be done in one's office, and that in the absence of symptoms it should not be performed. Nature would usually repair the damage done by a severe labor if a patient had proper care subsequently, including suitable diet, sunshine, hot douches, etc. Hence no one could say as early as a month after labor whether an operation would ever be called for. He had found that the cases which needed it most frequently, included those women who bore many children, the pregnancies following each other in quick succession.

DR. ENGELMANN did not altogether agree with the reader of the paper, but did not think the paper had been fairly discussed, in view of the fact that there were many cases in which the extent of the injury was such that they were almost certain to give rise to the characteristic symptoms. Like the other speakers, he disapproved of doing such operations in one's office.

DR. BOLDT, in concluding, desired to maintain the principal proposition of his paper, that cases in which the injury was so severe that symptoms could be predicted, would be benefited by intermediate trachelorrhaphy.

DR. T. A. ASHBY, of Baltimore, Md., read a paper entitled

THE VALUE OF LAPAROTOMY IN THE DIAGNOSIS AND TREATMENT OF MINOR FORMS OF INTRA-ABDOMINAL AND INTRA-PELVIC DISEASE.

It was stated that the limits of laparotomy would apply in general to those obscure conditions in the abdomen in which all other means of diagnosis and treatment had been unavailing. It was the only means of diagnosis for certain obscure forms of disease of the tubes and ovaries. There was still an unreasonable prejudice against it in certain directions, for it must be remembered that there was no danger in an abdominal section *per se*, but in the way in which it was done. Simple abdominal section should have no mortality, and was indicated in any condition which could not be treated by other methods.

The operation was indicated for morbid growths of the abdomen which might be small, but the relations of which could not be made out by other means. For ectopic gestation, he believes laparotomy is always indicated. As an expedient, it was preferable to electricity for many reasons. Neuralgic conditions of the pelvis, especially when associated with persistent pelvic pain, seemed to him an entirely legitimate indication for laparotomy. Intra-pelvic pain from displaced organs was an indication when other measures failed, and so were many forms of intra-abdominal and intra-pelvic hemorrhage.

DR. E. W. SAWYER, of Chicago, read a paper entitled

PARTIAL ROTATION OF THE OVUM IN EARLY PREGNANCY AS A CAUSE OF PLACENTA PRÆVIA, SUGGESTED BY TWO CASES IN PRACTICE.

The hypothesis of the reader was that since in the earliest period of pregnancy the ovum is not very firmly attached to the decidua, violence of a certain character,

for example, a fall or a violent jump, might displace it, throw it more or less downward on its axis, and cause it to lodge in the lower or cervical segment of the body; its proper site being usually considered as in the upper segment. The villosities of the chorion being detached along the upper (relatively) surface of the sphere as it rolls downward, a new implantation must be found, and that would necessarily be in the lower uterine segment and in greater or less proximity to the os internum. This would result in more or less pronounced placenta prævia. Two placenta (battledore) illustrative of this condition were exhibited, also diagrams demonstrating the hypothesis.

DR. C. KOLLOCK, of Cheraw, S. C., read a paper entitled

THE PROTECTIVE INFLUENCE OF VACCINATION DURING THE INTRAUTERINE EXISTENCE OF THE FŒTUS.

The protective value of vaccination to a fœtus, by the performance of that operation upon the mother, had been demonstrated by several French investigators, and its importance had seemed great to the reader. He had many times witnessed, in the malarial country in which he lived, typical congenital malarial fever in newborn infants, and was induced by these facts to make a series of experimental inoculations upon pregnant women, 36 in number, 14 being primiparæ. After labor was completed, the infants were also vaccinated. Of the children of the 14 primiparæ, vaccination failed in 5; of those of the 22 multiparæ, it failed with 16. It was evident, therefore, that immunity could be communicated by this method. It was probably better to vaccinate the mothers during the latter months of pregnancy when the fœtal circulation was well established and active.

DR. SAWYER, of Chicago, corroborated the statements of the reader, from an experience in vaccinating 30,000 times during the past few years, the large majority of the individuals being school-children.

DR. J. R. CHADWICK, of Boston, Mass., read a paper entitled

A CASE OF NEPHROTOMY FOR THE REMOVAL OF CALCULUS OF THE KIDNEY.

This was a case in which calculus of the left kidney had been diagnosticated by eminent authorities, and the symptoms pointed so strongly to its existence that an operation was advised. The kidney was incised, thoroughly explored and then carefully washed out, but no calculus was found. Since the operation the bad symptoms had returned, they were always exaggerated by worry on the part of the patient, and the reader of the paper believed that the symptoms were purely of nervous origin.

DR. A. F. CURRIER, of New York, suggested that the stone might have been in the cortex of the kidney, but so small that it was overlooked, not appreciated by the examining finger, and so impacted that it could not be washed out, a case presenting somewhat similar phenomena being narrated.

DR. G. J. ENGELMANN suggested that the possibility of obscure pelvic disease should be thoroughly considered in the case in question, and that it might throw some light upon it.

CORRESPONDENCE.

A NOVEL CATHETER.

To the Editor of THE MEDICAL NEWS,

SIR: On May 27th I was called to attend a boy near Equimunk, Pa., twenty-two miles from here, and found him suffering from acute peritonitis. When I called three days later he was suffering severely from complete retention of urine. I did not have a catheter with me, and as I would have had to send twenty-two miles to my home or eighteen miles to Hancock, New York, before one could be procured, making forty-four miles one way or thirty-six the other, before the boy could be relieved, and as he was suffering such severe pain, I thought I would try an original plan of my own.

I went out into a field and cut several long stems of what is known as buttercup or yellow daisy crowfoot and botanically as *Ranunculus*. I rubbed the stem down very carefully not to break any of its longitudinal fibres, oiled it, and drew the patient's water with it as well as if I had had one of the best of catheters. The boy was well formed and large for his age, weighing one hundred and forty pounds.

As the employment of a weed as a catheter is certainly novel, and as neither I nor my colleagues have heard of a similar case ever being reported, I have ventured to send it to THE NEWS, trusting that your readers may find it of interest. Truly yours,

SANFORD A. KELLY, M.D.

HONESDALE, PA., July 10, 1889.

NEW YORK.

(From our Special Correspondent.)

New York Academy of Medicine.—The corner-stone of the new building of the New York Academy of Medicine, in West Forty-third Street, near Fifth Avenue, was laid with appropriate ceremonies on the afternoon of October 2d. There was a large gathering of the medical profession, and distinguished men in other walks of life were also present.

The exercises were opened by an invocation by the Right Rev. Henry C. Potter, Bishop of New York, after which Dr. Abraham Jacobi, ex-president of the Academy, delivered an address, in which he spoke of the purposes and needs of the institution, and the relation of the medical profession to the community. In the course of his remarks he said: "The Academy has furnished a consulting bureau to all the Health Department's hospitals. A committee of the Academy was intrusted with the inquiry into the report on the condition of quarantine. It was to its report that the first appropriation for the rebuilding of the quarantine station was due, and to its recommendations that improvements are being carried out at the present time. In this way the medical profession excludes epidemics, and guards both physical health and the economic interests of the city."

Ex-President Grover Cleveland then delivered an address, which was in part as follows: "The congratulation and the satisfaction which attend this hour especially belong to the members of the Academy of Medicine. This is as it should be, for the exercises of to-day signalize an achievement wrought by their activity and energy, and give proof of their devotion and attachment

to their chosen profession. . . . . In these extensive foundations is also found proof of the progressive ideas of these earnest men, and their constantly enlarging estimate of what is necessary to meet the the purposes to which their energy is directed. . . . . I have spoken of the mission of the Academy. The nobility and sacred character of this mission have been often dwelt upon. It is an old story, but it will never lose its interest while humanity is touched with human woe, while self-sacrifice receives the homage of Christian hearts, while the sufferings and sorrows of our fellow-men start the tear of pity, nor while their alleviation brings comfort and satisfaction to the soul of sympathy. These reflections easily and naturally lead to the thought that the members of the Academy of Medicine are not entitled to the absolute monopoly of congratulation to-day. All your fellow-citizens may well claim a share, not only because they are interested in the promotion of the science and art of medicine, by reason of their liability to accident and disease, but because such advance in any profession as is here demonstrated adds to the glory and renown of our common country."

At the conclusion of Mr. Cleveland's remarks, the corner-stone was laid by the President of the Academy, Dr. Alfred L. Loomis.

THE RADICAL CURE OF HAY-FEVER WITH CHROMIC ACID.

To the Editor of THE MEDICAL NEWS,

IN the issue of THE NEWS for September 15, 1888, I presented a method of palliating the symptoms of hay-fever by the internal use of atropine and the local application of cocaine, both drugs being employed in doses much smaller than usual. Having followed the same method of local application with another agent, chromic acid, I am now enabled to present a means of radically curing obstinate cases of this disease.

The wire applicator shown in the engraving is identical with the form used last year, no advisable change having suggested itself. With this instrument carrying a medicament on cotton, applications may be made in all parts of the nose, an essential advantage which it does not share with any practicable form of galvano-cautery. The cautery, moreover, has several other disadvantages, among which the most important is its tendency to stick to the surface against which it is heated, and to require a pull for separation which effectually prevents the brushing movement necessary for the complete covering of a surface. None of the disadvantages inherent in the cautery are presented by the wire cotton-carrier bearing a proper fluid caustic. Of the many agents of this class, chromic acid possesses preëminent qualifications for our purpose. It is freely soluble, and can therefore be applied to every portion of a given surface; its solutions in successive strengths pass by continuous gradations from a mild astringent to a most powerful destroyer of animal and vegetable tissue. In proper strength it instantly combines with gelatinous and albuminous substances to form a tough, leather-like compound; it does not fume or evaporate, and has no smell, wherein it possesses a great advantage over the irritating acids, acetic, carbolic, and nitric, as well as over the cautery which generates pungent ammonia; and lastly, it is almost painless, and thereby distinguished from all other caustics, acid, alkaline, or thermal. This quality of virtual painlessness is only possessed by the absolutely pure chromic acid, the presence of a small quantity of sulphuric and arsenious acids, which accompany the impure article, giving rise to pain equal to that occasioned by other caustics. Merck's chromic acid has been found to answer the most rigid requirements, and is therefore recommended. Owing to its property of combining with gelatin and albumen, chromic acid instantly destroys the surface of mucous membrane, converting it into a leather-like film which adheres to the unchanged tissues beneath. The continuity of this film is proved by the fact that a second application of chromic acid to a spot once touched is scarcely perceived, from which it is obvious that the much milder irritant contained in the specific cause of hay-fever will likewise fail to act. The mucous surface being thus protected from irritants and microörganisms, will have the best conditions for rapid healing with normal nerve terminals, the only cure which can properly be characterized as radical. The extreme solubility of chromic acid places the operator in perfect control of the effect to be produced. In a solution of 1 per cent. it is astringent, in 10 per cent. it is a caustic as powerful as will be necessary except in special cases requiring removal of more than superficial tissue.

The only preparatory treatment which may be necessary is the checking of any abnormal secretion of mucus or serum. This is most readily accomplished with atropine, $\frac{1}{200}$ grain of which is given, and repeated in fifteen minutes if the desired diminution in the flow has not been attained in that time. Mucus interferes in two ways with the action of the acid: first it dilutes it to an unknown strength, and secondly, it combines to form a ropy substance which prevents the acid from reaching the surface of the membrane. Before introducing the acid, the physician should map out the surfaces requiring treatment. Polypi and hypertrophies are distinguished by the light thrown by a concave mirror through the speculum placed in the nostril, or upon the rhinoscopic mirror placed in the pharynx. Large growths may be removed by the cold or hot snare, the cautery, or chromic acid in solution containing 15 to 20 per cent. Cure will often follow the restoration of the nose to normal calibre; but on the other hand, hay-fever may occur in patients whose nostrils are entirely normal as far as present methods of inspection can reveal. In such cases the physician must resort to other means of diagnosis. With

Wire applicator, two-thirds actual size; made of German silver wire one-twenty-fifth inch in diameter; low spring temper.

the wire applicator carrying cotton soaked with pure water he can investigate parts of the nose into which light cannot penetrate. Sensitive spots, when touched, disclose themselves by the watering and winking of the patient's eye on the side under investigation and by the excitation of coughing or sneezing. The wire can and always should be withdrawn in advance of a cough or sneeze. The position of the cotton is of course known by the position of the end of the wire in the physician's hand. Having mapped out the spots at fault, he carries to them the chromic acid, preferably in 5 to 8 per cent. solution, and moves the cotton *slowly* over them to insure a thorough covering of the whole surface. It is well to make several applications over the same spots in one nostril at a sitting, as mucus may prevent a sensitive spot from being touched. If the patient is anxious for relief and willing to stand the greater discomfort for a shorter time, both nostrils may be treated at once. Should the new surface prove endowed with abnormal sensibility the process may be repeated without hesitation till the desired grade of nerve adjustment is reached. Treatment may be begun during the height of an attack, although if severe conjunctivitis is present it is well to proceed cautiously, as the inflammation excited by the acid, when applied in places most likely to be diseased, may increase the determination of blood to the eyes. Severe conjunctivitis is well treated by allowing fifteen drops of a solution of ½ per cent. of cocaine and 3 per cent. of boracic acid to fall into the eye and to be carried about for a few minutes by winking. The prone position is necessary for this purpose. Special attention should be paid to the anterior part of the upper turbinated body and to the anterior angle of the nose, as nature seems to have placed there the most sensitive nerves for the purpose of excluding noxious gases and irritants at the threshold of the respiratory apparatus. If the patient is unusually intolerant of pain the nostrils may be painted with a 2 or 4 per cent. solution of cocaine, but this drug should not be mixed with the chromic acid, as it is immediately precipitated in a gummy mass. The patient may advantageously make these applications himself under the supervision of a physician. Assured that his sensations will not allow him to do harm, he will quickly learn to distinguish the peculiar and indescribable feeling of the hyper-sensitive spots and to make applications to them with certainty. The amount of cotton to be used is shown in the cut. This should be soaked, and any excess allowed to drop off, as it might be drawn back into the throat by inspiration, and cause pain and coughing. The treatment will at the least consume several days, and possibly a few weeks. For instant relief only palliative measures will answer, and a year's experience with the cocaine and atropine treatment in the hands of other observers has confirmed the claims made for it as being effective and free from danger of poisoning or habit creation.

The immediate effect of chromic acid is to cause obstruction and watering of the nose and lachrymation. These symptoms displace the complex and far more annoying symptoms of hay-fever. Within a few minutes the discomfort and watering of the eyes begin to diminish, and in about one-half hour the watering and obstruction of the nose begin to abate. The patient should be instructed to use a cheap handkerchief at least during the hour after an operation, as the mucus is then capable of destroying even such resistant fibres as silk and linen, a good evidence of its energy in the solutions recommended. Neither the interior nor the exterior of the nose is rendered sore by any acid which happens to touch a place not intended. The imperfect sleep of hay-fever is improved. The power of chromic acid to promote the growth of normal mucous membrane is proved by the increase it effects in the delicacy of the sense of smell. This effect is due in part to the tendency to contraction exerted by chromic acid on the tissues, of which tendency advantage is taken by this method of application which is able to carry the acid directly to the surface exposing the end filaments of the olfactory nerve. The principal seat of the sense of smell is a narrow chink situated in the upper anterior region of the nose, a space prone to engorgement, as is proved by the obliteration of smell in incipient coryza before the wider breathing spaces below are obstructed. Obviously the widening of this chink, by allowing access of scent-bearing air to the olfactory nerve, will promote the perception of smells, and, furthermore, it will *add to mental activity, which is very closely dependent upon perviousness in this region* owing to the path followed by blood going to the fore-brain. The contraction of tissues is often sought by means of the cautery, and frequently defeated by the total regeneration of the burnt portion. When attained it is often attributable to the formation of scar-tissue, which is well known to be abnormally subject to malignant degeneration. Moreover, scar-tissue is insensitive to normal stimuli, and therefore a permanent damage to the organ.

The wider knowledge arising from the attention paid to hay-fever within the last decade has demonstrated beyond question that this misnomer improperly groups varying combinations of symptoms arising from a large number of causes. The physician should not accept a patient's self-diagnosis, but should draw his own conclusions from a separate examination of each case. By such examination he will be guided to a knowledge of the special cause, and therefore to the most effective treatment—for some tonics, for others sedatives or antipyretics, for others surgical or local measures. But, after all known methods of treatment have been tried, there has still remained a proportion of unexplained failures to cure, and it is believed that the measures above outlined will lead to the reduction, if not the entire obliteration, of this remainder.

A. H. L.

NEWS ITEMS.

Rembrandt's "Lesson in Anatomy."—Rembrandt's celebrated picture entitled "A Lesson in Anatomy," a full size copy of which hangs at present in the hall of the College of Physicians of Philadelphia, has, we understand, been purchased by Mr. Ellesworth, for the Institute of Art, of Chicago. It formerly belonged to the Princess de Sagan, and until recently has been in an art gallery in the Hague.

Execution by Electricity.—At a recent meeting of the Paris Academy of Sciences a communication from Mr. Edison was read respecting the use of electricity as a means of inflicting capital punishment. He is of opinion that an alternative current will cause death without pain, but he adduces no experimental evidence in support of

that contention. The matter was referred to the Medical Section of the Academy, which is to have the assistance of M. Marcel Desprez, the electrician, in drawing up a report on the subject.—*British Med. Journal*, September 21, 1889.

Opening of the Training School of the Johns Hopkins Hospital.—The Training School of the Johns Hopkins Hospital, Baltimore, was opened with appropriate ceremonies on Wednesday afternoon, October 9th, at half-past three o'clock.

The Medical and Chirurgical Society.—The London strikes have had their effect in medical circles. The erection of the new edifice of the Royal Medical and Chirurgical Society, in Hanover Square, has been seriously delayed, so that it is doubtful if the new library and rooms for meeting can be utilized during the coming winter. Three other societies, the Pathological, the Clinical, and the Obstetrical, expected to enjoy the privileges of the new buildings, but are now, for an indefinite period, without suitable accommodations for their meetings.

Vindication of an Accused Physician.—The *cause célèbre* at Brooklyn, known as the Bogert-Duncan case, has passed its first stage. The charge against Dr. Bogert, brought by the Commissioner of Health, Dr. Griffin, has been dismissed in the police court. Dr. Bogert was accused of wilful violation of the sanitary ordinances in that he did not report the case of his friend, Dr. Duncan, of the steamer "Colon," when treating him for yellow fever. Dr. Bogert, who has always denied the fact of yellow fever, and who, the other day, had the Health Officer of the Port, and five other medical witnesses, ready in court to testify to his correctness in diagnosis, has been anxious to have his hearing in the courts. The complainant asked for an adjournment, the fifth or sixth, which was more than the Justice could allow, and the case was dismissed in default. It may, of course, be heard anew, but the present position is practically a vindication of the accused. Again, Dr. Bogert has a serious grievance against the Board of Health for holding him a prisoner, at the residence of his patient, under the guise of a quarantine. He and his friends have repeatedly threatened to bring suit against the city for damages due to this duress, which lasted two days and over. That this will ever be done is most doubtful, for such matters move too slowly to be either entertaining or instructive. A lesson has probably been learned, however, by the health officials. They know that if they imprison a medical man at the house of his patient, in *quasi* quarantine, there is very soon thereafter to be a storm in the profession which will be unpleasant and injurious. Not even the fear of yellow fever will ward off this result.

American Public Health Association.—We are in receipt of the circular of the American Public Health Association, which contains the programme of the seventeenth annual meeting, which is to be held at the Brooklyn Institute, Brooklyn, N. Y., from October 22d to 25th, inclusive. Among the principal subjects for consideration we note the following:

1. Causes and Prevention of Infant Mortality.
2. Railway Sanitation.
3. Steamship Sanitation.
4. Methods of Scientific Cooking.
5. Yellow Fever.
6. The Prevention of Tuberculosis in Man.
7. Methods of Preventing Diphtheria, etc.

Over twenty original papers will be presented. Among the speakers we notice the names of Drs. John S. Billings, George M. Sternberg, Henry B. Baker, Henry Leffmann, J. N. McCormack, and others equally well known. The meeting will be rendered still more interesting by an exhibition of sanitary goods and appliances. An address of welcome will be delivered by Hon. Alfred C. Chapin, Mayor of Brookyn, and also by Dr. Alexander Hutchins on behalf of the profession.

The Secretary, Dr. Irving A. Watson, gives, in the circular, all necessary information concerning reduced hotel and railroad rates. The meeting will be presided over by Professor Hosmer A. Johnson, M.D., of Chicago.

The profession in general is cordially invited to attend the meeting, and both ladies and gentlemen of the laity will be welcomed to the evening sessions.

Cholera on the Euphrates.—Latest advices inform us that cholera still continues to be epidemic at Bassorah, Bagdad, and other places on the Euphrates. The death-rate is said to be very great.

New German Pharmacopœia.—The Imperial Pharmacopœia Commission of Germany is to meet in Berlin this month, in order to frame the third edition of the Pharmacopœia Germanica. It is their aim to have the work completed by 1890. All recent additions to materia medica will be incorporated in this new edition. In addition to the Pharmacopœia the German Society of Apothecaries intend issuing a supplement which will deal with all the remedies not given in the official dispensatory. The profits accruing to the Society from the sale of this supplement will, it is said, be devoted to a philanthropic cause.

Mortality in Philadelphia.—During the week ending September 28th there were 312 deaths in this city. This includes the following deaths from infectious diseases:

Enteric fever	15
Scarlet fever	2
Diphtheria	3
Whooping-cough	2

Scarlet Fever in London.—The epidemic of scarlet fever in London seems to be steadily on the increase. According to the *Medical Press and Circular* of September 25th, the number of cases under treatment in the hospitals of the Metropolitan Asylums Board, on September 17th, amounted to 1070.

Illness of Dr. F. X. Dercum.—We regret to learn that Dr. F. X. Dercum, the Instructor in Nervous Diseases in the University of Pennsylvania, is seriously ill with typhoid fever.

New Building for the Philadelphia Polyclinic.—The contract for the erection of the new college, hospital, and dispensary building of the Philadelphia Polyclinic and

College for Graduates in Medicine was awarded last Saturday.

The new structure will rest on a lot 96 feet by 143 feet, about three blocks from the present temporary quarters, and will be of brick, sand-stone, and terra-cotta. It will be four stories in height, and will occupy at present only one-half of the lot.

The important features of the building will be the incorporation of the most modern accepted plans in hospital construction.

The system of heating will be by indirect radiation, and the ventilation that of sub-stratum suction. All corners in the building will be rounded to avoid the accumulation of dust. The water-closets and bath-rooms will be in a separate building easily accessible from all parts of the building. The kitchen and laundry will be at the top, separated from the lower floors by an artificial stone floor. The clinic rooms will be on the first floor in direct communication with a spacious waiting-room.

The corner-stone will be laid with the impressive masonic ceremonies on November 2d, on which occasion it is hoped that the committee having the matter in charge, will be able to present the fund for the perpetual endowment of a free bed in the name of Dr. R. J. Levis, as a testimonial of esteem, and in recognition of his professional eminence.

Electricity at the Howard Hospital.—At the Howard Hospital, Broad and Catharine Streets, Philadelphia, electricity is now a special feature of one of the gynecological clinics, under the charge of Dr. G. Betton Massey, who invites the profession to send cases there for which this treatment is appropriate, particularly fibroid tumors. The clinics are held Mondays, Wednesdays, and Fridays, at 12 M.

Dr. Roberts Bartholow.—For the past few days a report has been widely circulated through this city to the effect that Dr. Bartholow had been called to Milwaukee to see one of the millionaires of that city, the fee to be paid being one of the largest in the history of medicine. An enterprising New York reporter has prepared a long article on the subject. We learn from correct sources that the story is a hoax, and that there is no truth in it, except the fact that the members of the profession of this city are recognized as worthy of handsome remuneration.

Death of Professor Rudolph Voltolini.—Laryngology abroad has lost one of its most prominent representatives in the person of Professor Rudolph Voltolini, of Breslau, who died on September 11th, in his seventy-first year. Voltolini was an enthusiastic worker in the field of medicine which he had chosen. He has been not unjustly called the father of rhinoscopy, and certainly did more to improve the *technique* of that difficult art than any other teacher. He was a most able writer, being one of the editors of the *Monatschrift für Ohrenheilkunde* up to the time of his death. He was also the author of numerous works dealing with his specialty.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING OCTOBER 5, 1889.

HARMON, GEORGE E. H., *Surgeon.*—Detached from the U. S. S. "Constellation," and ordered to the Naval Academy.

LOWNDES, C. H. T., *Assistant Surgeon.*—Detached from the U. S. S. "Constellation," and ordered to the Naval Academy.

WINSLOW, GEORGE F., *Surgeon*—Ordered to Marine Rendezvous, Boston.

HENRY, CHARLES P., *Assistant Surgeon.*—Ordered before the Retiring Board for examination.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FROM AUGUST 24 TO OCTOBER 5, 1889.

FESSENDEN, C. S. D., *Surgeon.*—Granted leave of absence for thirty days, October 3, 1889.

WYMAN, WALTER, *Surgeon.*—Granted leave of absence for thirty days, September 3 and 21, 1889.

SAWTELLE, H. W., *Surgeon.*—Granted leave of absence for seven days, September 26, 1889.

AUSTIN, H. W., *Surgeon.*—Granted leave of absence for thirty days, September 9, 1889.

GASSAWAY, J. M., *Surgeon.*—When relieved at New Orleans, La., to rejoin station at Cairo, Ill., September 30, 1889.

GOLDSBOROUGH, C. B., *Surgeon.*—Leave of absence extended thirty days, on surgeon's certificate of disability, September 16, 1889.

ARMSTRONG, S. T., *Passed Assistant Surgeon.*—Relieved from duty at New York; ordered to command of Service at Cleveland, Ohio, September 17, 1889.

AMES, R. P. M., *Passed Assistant Surgeon.*—Assigned to duty at New Orleans, La., upon expiration of leave of absence, September 30, 1889.

WHITE, J. H., *Passed Assistant Surgeon.*—Leave of absence extended thirty days, on surgeon's certificate of disability, September 21, 1889.

NORMAN, SEATON, *Assistant Surgeon.*—Granted leave of absence for thirty days, to take effect when relieved, October 4, 1889.

PETTUS, W. J., *Assistant Surgeon.*—Ordered to Portland, Me., for temporary duty, September 26, 1889. Granted leave of absence for twenty-six days, to take effect when relieved, October 3, 1889.

KINYOUN, J. J., *Assistant Surgeon.*—Granted leave of absence for thirty days, September 21, 1889.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCTOBER 1 TO OCTOBER 7, 1889.

POINDEXTER, JEFFERSON D., *Assistant Surgeon.*—Granted leave of absence for one month.—*S. O. 115, Headquarters Department of Dakota*, September 30, 1889.

BILLINGS, JOHN S., *Surgeon.*—Detailed as delegate to represent the Medical Department of the Army at the annual meeting of the American Public Health Association, to be held at Brooklyn, New York, October 22, 1889.—Par. 10, *S. O. 230, A. G. O.*, October 3, 1889.

POPE, BENJAMIN F., *Surgeon.*—Relieved from duty at Fort Clark, Texas, and will report for duty to commanding officer Whipple Barracks, Arizona Territory.—Par. 11, *S. O. 230, A. G. O.*, October 3, 1889.

TREMAINE, WILLIAM S., *Surgeon.*—Relieved from duty at Fort Leavenworth, Kansas, and will return to his home, Buffalo, New York.—Par. 13, *S. O. 230, A. G. O.*, October 3, 1889.

KENDALL, WILLIAM P., *Assistant Surgeon.*—Granted leave of absence for one month.—*S. O. 93, Department of the Platte*, October 2, 1889.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS *should be addressed to No. 1004 Walnut Street, Philadelphia.*